

Registration of New Companies.

The following joint-stock companies have been duly registered:—

THE HOLBECK MINING COMPANY (Limited).—Capital 60,000*l.*, in shares of 5*l.* To acquire, by purchase or otherwise, freehold and leasehold properties, lands, mines, pits, quarries, &c., for the purpose of carrying on the business of mining generally; raising, getting, and working, smelting, refining, selling, and otherwise disposing of ores, minerals and metals, and forging, casting, rolling, and shipping same. The subscribers (who take one share each) are—H. C. Bunkell, 106, Cheapside, surveyor; V. L. E. Miller, Temple, barrister-at-law; T. T. Miller, 85, Gracechurch-street, solicitor; H. B. Bunkell, Finsbury Park, estate agent; J. Noad, East Ham, engineer; R. F. Davies, Northfleet, manufacturer; G. Crabb, Kingsland, contractor. The first four subscribers shall constitute the board. Future directors will have to qualify in 20 shares.

THE NEUROGINE COMPANY (Limited).—Capital 60,000*l.*, in shares of 1*l.* The manufacture and sale of a medicinal and non-intoxicating beverage. The subscribers are—W. Tibbles, Lyston, 2000; J. Gibson, Melton Mowbray, 300; S. Burton, Leicester, 10; E. L. Antrobus, Birmingham, 10; J. Pearson, Lyston, 1; R. C. Pearson, Lyston, 1; G. Burden, Leicester, 5.

THE LEEDS RACE COURSE COMPANY (Limited).—Capital 60,000*l.*, in shares of 10*l.* To purchase a property at Osmondthorpe, and erect thereon and maintain a race course, &c. The subscribers (who take one share each) are—J. M. Verity, Leeds; S. Heaton, Leeds; J. Heaton, Leeds; J. Fawcett, Leeds; J. Severs, Leeds; B. Naylor, Leeds; J. Robinson, Scarborough.

THE EAST AFRICAN COMPANY (Limited).—Capital 1,000,000*l.*, in shares of 10*l.* To acquire certain concessions and carry on a business in connection therewith. The subscribers (who take one share each) are—P. E. Lintilhac, Caterham Valley; J. C. P. d'Andrada, 94, Jermyn-street; M. F. da Silva, 3, Throgmorton Avenue; B. P. Pargana, 141, Victoria Park-road; J. Silva, 35, Crutched Friars; C. Ricci, 3, Throgmorton Avenue; S. Mendal, Balham.

THE MARAZON IMPROVEMENT COMPANY (Limited).—Capital 10,000*l.*, in shares of 1*l.* A local business of a land and building company in Cornwall. The subscribers (who take one share each) are—W. R. Crowe, 30, Budge-row; H. Williams, 30, Great St. Helen's; F. Dewing, 8, Delamere-street; G. H. Keene, Palmerston Buildings; W. Trew, 54, Hanover Gardens; W. Vincent, Poplar; C. Lockwood, Lower Norwood.

THE VACUUM PUMP AND ICE MACHINE COMPANY (Limited).—Capital 100,000*l.*, in shares of 10*l.* To manufacture machinery and apparatus for the production of ice in connection with certain patents. The subscribers (who take one share each) are—G. Smith, 15, Waterloo-place; E. Hart, 38, Wimpole-street; G. M. Alexander, Roehampton; J. B. Rottenstein, Paris; G. M. Smith, jun., 17, Green's Gate Gardens; J. Aitchison, 6, Pembroke-road; W. Howard, Lee.

THE MARINE SALVAGE AND HYDRAULIC SHIP-RAISING COMPANY (Limited).—Capital 200,000*l.*, in shares of 5*l.* The subscribers (who take one share each) are—T. Sissons, East Dulwich; C. Harvey, Drayton Park; J. F. Copeland, Penge; E. M. Pigram, Holloway; A. Aylard, Manor Park; J. Andrew, Tollington Park; C. Barnett, Kingsland.

THE TOWNLEY MILLS COMPANY (Limited).—Capital 65,000*l.*, in shares of 100*l.* The business of cotton spinners and manufacturers, &c. The subscribers (who take 20 shares each) are—A. Mellor, Oldham; H. Heywood, Middleton; J. W. Lees, Oldham; C. T. Bardsley, Oldham; J. Hardman, Oldham; E. Schofield, Oldham; E. Potts, Oldham.

THE LIVERPOOL SOAP COMPANY (Limited).—Capital 50,000*l.*, in shares of 1*l.* To establish and work soap-works at Bootle, near Liverpool. The subscribers (who take one share each) are—R. Bovnes, Liskard; D. Horn, Liverpool; J. Riley, St. Helen's; J. Griffith, Liverpool; J. McEachran, Liverpool; H. L. Riley, Liverpool; E. Burgess, St. Helen's.

THE EDISON ELECTRIC LIGHT COMPANY (Limited).—Capital 1,000,000*l.*, in shares of 10*l.* To acquire certain patents, and conduct in all branches an electrician's business. The subscribers (who take 500 shares each) are—E. P. Bouverie, 44, Wilton-crescent; Sir John Lubbock, High Elm; H. Gilliat, 4, Crosby-square; W. G. Rainham, 2, Fenchurch Avenue; W. Fowler, 38, Grosvenor-square; F. J. Bramwell, 37, Great George-street; E. H. Johnson, 57, Holborn Viaduct.

T. BISHTON (Limited).—Capital 20,000*l.*, in shares of 100*l.* To acquire and carry on a sheet-iron manufacturer's and galvaniser's business, established at Monmore Green, Wolverhampton. The subscribers are—T. Bishton, Wolverhampton, 25; W. Bishton, Wolverhampton, 1; W. F. Bishton, Wolverhampton, 20; J. Millington, Wolverhampton, 25; W. Bywater, Wolverhampton, 2; J. H. Lindsay, Liverpool, 5; F. D. Minshall, Wolverhampton, 1.

THE "LONDON" GAS ENGINE COMPANY (Limited).—Capital 75,000*l.*, in shares of 1*l.* The general business of iron and brass founders, machinists, and engineers in all branches. The subscribers (who take one share each) are—R. C. Martin, 2, Cloudeley-square; J. E. Clarke, 7, Upper Ashby-street; W. H. Johnson, Islington; E. C. Wakeling, 10, Mitchell-street; C. H. Burgess, 133, Donger-road; F. A. Wiedhofft, 42, Upper-street; J. W. Statz, 68, Charles-street.

FAULKNER'S (Limited).—Capital 60,000*l.*, in shares of 1*l.* To carry on and extend the business of hosiers, hairdressers, perfumers, &c. The subscribers (who take one share each) are—H. O. Taylor, 23, Phillimore Gardens; W. Atlee, Windmore Hill; B. Delatorre, 39, Moorgate-street; G. Davison, Pimlico; W. Rowse, Chichester-place; J. Murphy, Wood-lane; T. J. Fitzmaurice, 11, Coleman-street.

THE DECORATIVE CO-OPERATORS' ASSOCIATION (Limited).—Capital 10,000*l.*, in shares of 1*l.* The business of painters, decorators, and furniture manufacturers. The subscribers are—E. Majoribanks, 134, Piccadilly, 20; A. Grey, Howick, 20; A. H. D. Ackland, Oxford, 10; E. S. Talbot, Oxford, 10; E. A. Abbott, City of London School, 100; W. Minet, Temple, 10; A. C. Corbet, Monbulla Hall, 500.

THE YANG-TSZE INSURANCE ASSOCIATION (Limited).—Capital 200,000*l.*, in shares of 50*l.* A marine insurance business in all branches. The subscribers (who take one share each) are—F. D. Hitch, 5, Fenchurch-street; S. W. Pomeroy, 5, Fenchurch-street; R. Blackwell, 68, Cornhill; D. McLean, 31, Lombard-street; H. W. Wood, 2, Billiter Avenue; J. Buttery, 17, Trinity-square; F. B. Forbes, 58, Lancaster Gate.

THE ANGLO-AMERICAN CLAY PIGEON COMPANY (Limited).—Capital 30,000*l.*, in shares of 5*l.* To acquire, use, sell, or otherwise dispose of certain patents in connection with pigeon shooting, traps, &c. The subscribers are—G. A. C. Elliott, Edinburgh, 40; O. J. Crewe-Read, 2, Portugal-street, 20; R. Herbert, Clithero, 20; W. Pilcher, 49, Pall Mall, 1; J. G. Denele, 131, Grosvenor Park, 1; H. Curten, Vigo-street, 1; P. P. Wooldred, jun., Wittington-road, 1.

THE WHARNCLIFFE WOOD MOOR COLLIERY COMPANY (Limited).—Capital 30,000*l.*, in shares of 10*l.* To acquire as a going concern the undertaking, business, property, and assets of a colliery situated at Carlton, near Barnsley, county of York, and to continue the business of a colliery owner and manufacturer of coke, fuel, and other products, bricks, tiles, pipes, &c. The subscribers (who take one share each) are—T. Cote, Oaklands, Esq.; J. J. Allport, Derby, Esq.; H. A. Allport, Nottingham, colliery owner; W. R. Percy, Barnsley, M.E.; E. D. Ward, Carlton, accountant; E. M. Needham, Belper, railway superintendent; B. Dalglish, Asfordby, C.E.

THE BOULINIKON FELT COMPANY (Limited).—Capital 10,000*l.*, in shares of 10*l.* To acquire and carry on a business of manufacturing paper, articles of paper, &c. The subscribers (who take one share each) are—A. Davidson, 80, Upper Thames-street; J. Davidson, Aberdeen; D. Davidson, Aberdeen; T. Griffith, Salford; J. Mackie, 154, Anclerley-road; S. H. Dowsett, Wainstead; E. Guthrie, Manchester.

JAMESON'S PATENT COKING COMPANY (Limited).—Capital 100,000*l.*, in shares of 5*l.* The business of coke makers, oil refiners, chemical manufacturers, and merchants. The subscribers (who take one share each) are—W. W. Pattinson, Newcastle-on-Tyne; J. Jameson, Akenhead; L. H. Armour, Gateshead-on-Tyne; J. T. Merr,

Newcastle-on-Tyne; R. Hoyle, Newcastle-on-Tyne; R. S. Watson, Newcastle-on-Tyne; N. C. Cookson, Newcastle-on-Tyne.

THE BIRMINGHAM AND DISTRICT BOILER INSURANCE COMPANY (Limited).—Capital 50,000*l.*, in shares of 10*l.* An ordinary insurance business, and the inspecting and reporting upon boilers, engines, &c. The subscribers (who take 100 shares each) are:—A. Keen, Birmingham; B. Bingley, Dudley; R. Williams, Wednesbury; E. F. Smith, Dudley; J. Holcroft, Stourbridge; T. Holcroft, Bilston; C. Holcroft, Dudley.

THE DAYTON COAL AND IRON COMPANY (Limited).—Capital 250,000*l.*, in shares of 500*l.* To purchase or otherwise acquire a business established at Dayton, in Rhea county, State of Tennessee, United States of America, and certain interests in the lands, mines, railways, buildings, &c., belonging thereto, for the purpose of fully developing and working said business and interests. The subscribers (who take one share each) are—G. Salt, St. James's-square, Esquire;

E. Salt, Baildar, manufacturer; T. Salt, Milner-field, manufacturer; C. Stead, Baildon, manufacturer; W. Stead, Saltair, spinner; C. F. Stead, Baildon, spinner; J. H. Wade, Manningham, solicitor. The following constitute the first board:—Messrs. G. Salt, E. Salt, T. Salt, C. Stead, and W. Stead—the qualification being fixed at 10 shares.

SNOWDON MOUNTAIN COPPER MINES.—A supplemental statement has been issued by the promoters of the company to be formed to work these mines, directing attention to the experiments of Depress in connection with the transmission of power by electricity. It is found that one-half of the power applied can be utilised at the end of an iron wire of considerable length. When water-power is the applicable to generate the current this loss is immaterial. All the Snowdon ores treated by Mr. Readwin are found, it is said, to contain gold in paying quantities.

THE GARTH MERTHYR STEAM NAVIGATION COLLIERIES (LIMITED).

Issue of 350 First Mortgage Debenture Bonds of £100 each, bearing interest at 6 per cent. per annum. 100 per cent. in fully paid Shares given with each Debenture or £200 in Shares and Debentures for every £100 invested. Messrs. BARNETTS, HOARES, and CO., Bankers, Lombard Street, London, and Messrs. WILKINS and CO., Brecon Old Bank, Cardiff, are authorised to receive subscriptions for the above 350 Bonds of £100 each, being the balance of 500, the remainder having been issued to the Vendor as part consideration for the purchase of the property.

THE GARTH MERTHYR STEAM NAVIGATION COLLIERIES (LIMITED).

No promotion money is paid by this company beyond the actual expenses, and the large amount which is usually paid to public promoters is included in the fully paid Shares given to the debenture holders, which alone are estimated to yield a dividend of 9 per cent. per annum.

Thus the investors obtain a First Mortgage Security for their investment bearing interest of 6 per cent. per annum as well as an equal amount in fully paid Shares in the undertaking, estimated to pay 9 per cent. per annum, together equal to 15 per cent. on the original investment.

The Garth Merthyr Steam Navigation Collieries (Limited).

TRUSTEES FOR THE DEBENTURE HOLDERS.
THOMAS SAUNDERS, Esq., J.P. | JOHN WALKER, Esq.,
DIRECTORS.

General ADDISON, C.B., Melton, Suffolk.
THOS. SAUNDERS, Esq., J.P. (Director of the Lake Superior Copper Company, Limited).
T. B. FOX, Esq., J.P. (Messrs. Windgate and Co.), 14, Tithebarn Street, Liverpool.
J. P. HALL, Esq. (Messrs. A. Hall and Son), Westbury, Wilts.
J. WALKER, Esq. (Director of the Abbotbury Railway Company).

OFFICES—15, FINSBURY CIRCUS, LONDON, E.C.

ABRIDGED PROSPECTUS.

The property upon which the debentures will be charged is the Garth Merthyr Steam Navigation Collieries, situated in the parish of Llangonoyd, Glamorganshire, and connected by the Great Western Railway with the principal shipping ports of South Wales.

The property has been reported on by the well-known mining engineers, Mr. W. Adams, Cardiff, Mr. James Barrow, Maesteg, and Mr. R. Southern, Cardiff, copies of whose reports will be forwarded on application at the offices of the company. They estimate it to contain nearly 15,000,000 tons of coal, equal to an output of 750 tons per day for 60 years, and that upwards of £30,000 has already been expended.

It is important to notice that this property is not one upon which a large amount must be expended before returns are made, but is a going concern, and will yield an immediate output of coal, which, at a very moderate profit, will ensure the prompt payment of the debenture interest while the further development is proceeded with.

The prospectus is accompanied by a section of the coal measures underlying the property, the whole of which the company has the right to work, and which have all been proved.

The average cost of the coal, based on previous workings is 8s. per ton f.o.b. Cardiff. The present selling price is 9s. 6d. per ton, leaving a profit of 1s. 6d. per ton. This will yield an enormous dividend on the estimated output, but the directors have considered it sufficient to reckon on 1s. per ton, thus leaving 33 per cent. of the estimated profits not dealt with. This gives an annual profit of £7500 on coal to which must be added at the very least £1200 on coke—together, £8700 per annum. The details of the calculations will be forwarded on application at the offices of the company.

These profits will enable the directors, after setting aside 6 per cent. interest on debentures, and 20 per cent. of balance to the redemption fund, to pay a dividend of 9 per cent. on share capital.

Thus the investor of every £100 will possess securities in debentures and shares for £200, the interest and dividend of which will, it is estimated, be equal to 15 per cent. on the original investment.

These collieries were acquired by the vendor with the intention of working them in conjunction with his own, but the undertaking is of too extensive a nature to be handled by him individually, hence the disposal of them to the present company.

Arrangements have been made with him to continue the management, as he is a gentleman of long and successful experience; this will be a great advantage to the company. He has taken more than half the purchase-money in debentures, and the possession of such a large interest in the property furnishes a guarantee of good and economical management.

Prospectuses and forms of application, together with plans and reports, and a surface sketch of the property will be forwarded on application to the offices of the company, where the original documents can be inspected.

N.B.—For the satisfaction of Scotch investors it was proposed that a disinterested engineer of eminence and well known in Scotland should be requested to inspect and report upon the property, and verify the statements in the prospectus. The vendor at once assented to this proposal, and Mr. J. H. Geddes (of the firm of Messrs. John and G. H. Geddes) was selected to visit and report on the colliery. The directors are glad to be able to state that this report is eminently satisfactory, and a copy of it can be seen at the offices of the company.

BULTHY MINE LEAD AND BARYTES WORKS COMPANY (LIMITED).

BANKERS—LLOYDS' BANKING COMPANY (Limited), Welshpool Branch.
FIFTEEN PER CENT. DIVIDEND.

See Prospectus, to be obtained of Bankers or Secretary, at the Offices,—
6, Westminster Chambers, S.W.

BIRMINGHAM & HARROWBARROW MINING COMPANY, LIMITED.

The following Circular was issued on the 27th February, 1883:—

14, Temple Street, Birmingham, Feb. 27th, 1883.

LADIES AND GENTLEMEN,
At the Board Meeting to-day the Managing Director handed in the following report, which speaks for itself:—

"Gentlemen,—When I last reported to you the progress which had been made in the disposal of this Company's capital, and upon which report you took action and placed the shares at a premium; I led you to take this step from what I now find to be an impracticable conclusion.

"As you are aware, nearly all the creditors of the Wheal Fortune Company are willing to change their claims on that Company, into shares in our Company, and you were willing to accept such an arrangement, provided the Liquidators would take over the vouchers thus collected by us in lieu of, or in part payment of the £2200 which this Company is to pay in cash for the property.

"I have now to inform you that the Liquidators are prohibited by Law from entering upon any such arrangement, and they have advised your Secretary that they must have the whole of the actual cash placed in their hands, as they alone can distribute.

"This decision upsets therefore your arrangement to reserve the

unallotted shares for a premium, and will oblige you to open the subscription list for a special application at par for a time. I would advise, however, that in fairness to those who have applied for shares at a premium, that you allow this premium to be remitted, or placed to the credit of such shares in lieu of payment of second call."

The Directors thereupon resolved to carry out the suggestions of the Managing Director, and ordered that his letter be printed, together with a Notice to the effect that Subscriptions at par for the unallotted shares be invited, the allotments to be made as the applications come to hand, and that no application be considered, unless accompanied by a remittance of 2s. 6d. per share on the special form provided for that purpose.

In carrying out the decision of the Board I have therefore the pleasure of enclosing you our Prospectus and Special Form of Application, hoping that you will be able to secure a few of those shares which it is confidently expected will be in the Dividend-paying list before many months elapse.

I remain, Ladies and Gentlemen,
Yours obediently,
G. J. PARKINSON, Secretary.

The Remaining 14,500 Shares are offered for Subscription, and the LIST will be CLOSED on 15th MARCH NEXT ;
Deposit 2s. 6d., and Allotment 7s. 6d. per Share.

Under same management as Bratsberg, which has just paid a dividend from first year's operations. NEDENÆS is expected to do much better.

NEDENÆS COPPER COMPANY

(LIMITED).

Incorporated under the Companies Acts, with Limited Liability.

CAPITAL, £60,000, IN 30,000 SHARES OF £2 EACH;
(Of which only 14,500 Shares remain to be offered).

Deposit 2s. 6d. per Share ; 7s. 6d. per Share payable on Allotment, and the remainder in three instalments of not exceeding 10s. each, at not less than three, six, and nine months from date of Allotment.
(If no Allotment is made, the Deposit will be returned in full).

DIRECTORS.

JONAS BERGTHEIL, Esq., 3, Circus Place, Finsbury.
H. W. LAMB, Esq.,
JOHN McMILLAN, Esq.,
J. H. MURCHISON, Esq., F.R.G.S.
JOSEPH SALA, Esq., (Messrs. Sala and Co.), 108, Fenchurch Street, E.C.

* Will not act as a Director until after Allotment.

BANKERS.

IMPERIAL BANK, LIMITED, Lothbury.

SOLICITORS.

Messrs. HANCOCK, SHARP, and HALES, Dashwood House, New Broad Street.

SECRETARY AND OFFICES.

MR. J. H. A. SMITH, 8, AUSTIN FRIARS, LONDON, E.C.

The object of this company is to purchase several large and valuable freehold and other properties, with the extensive and productive copper mines, and the important plant and machinery thereon, as a going concern; all situate about 10 miles from Arendal, the principal shipping port of Norway.

The first operations were carried on in a most primitive manner, without any capital or machinery, but during that time they are said to have yielded about £30,000 of copper.

Since then, machinery for pumping, hauling, dressing, &c., has been erected, tramways laid down, shafts have been sunk, several levels driven, mostly for short distances, and about 4000 tons of ore and regulus sold (chiefly within a consecutive period of about 12 months) for the gross sum of £18,600, while it will be seen by Capt. Skewis's report, "the reserves in all the mines are considerable, as during the last two years the ground sunk and driven has been more in proportion than that stoped. It is estimated that there are about 3750 fms. of profitable ore ground opened.

It is important to notice that the lode improves considerably in depth, as in Brown's shaft it has increased in value from 4 tons of copper ore per fathom at 75 fathoms to 6 to 8 tons at 92 fathoms; and the 75, 60, and 50 fm. levels have been driven east about 80, 110, and 100 fathoms respectively, laying open ground varying in value from 2 to 5 tons per fathom; while the 60, west of Lamb's shaft, has been driven 60 fathoms in a run of profitable ground. No levels are yet driven below the 75, but they can be commenced at once at the 85 in a richer lode than in the levels above. At Sletne and Boilstad the lode is also best in the bottom, at the former being valued at 4 tons per fathom at only 12 fathoms deep.

The extent of this property on the course of the lodes is about two English miles, the Skytmur and Boilstad Mines (both productive) being about 1050 fathoms apart; the Sletne shaft has lately been sunk between these mines, and the lode found to be rich. These are facts of the greatest importance in confirming the belief in the immense quantities of copper ore to be obtained by a vigorous working on a larger scale.

Capt. Daw, the manager of the famous Bratsberg Copper Mines, under date 4th September, 1882, writes about Nedenæs:—

"At Skytmur the two shafts are sunk 77 fathoms and 92 fathoms, but no level driven below 75. You can drive deeper levels at once in a richer lode than in levels above. There is a rich lode in the bottom of Sletne (750 fathoms to the east), though only 12 fathoms deep; and at Boilstad, 1050 fathoms east of Skytmur, the lode opens well.

"Hitherto a large quantity of the ore would not pay for dressing and sending to England. The water washed away most of the copper, and left the iron. By your proposed plan of calcining all this ore will be available, and add materially to the returns. I estimate there are at surface at the different mines about 1500 to 2000 tons of ore ready to be treated, and by sinking more shafts on the lode, together with the use of boring machinery, I feel sure you will open still larger deposits of ore. I do not know where to find such a property again."

Capt. Skewis gives a list of the plant and machinery, and states that "the dressing machinery is arranged and erected with great judgment and skill, and capable of treating a large quantity of stuff," and that all is under cover, built of the best material, and fitted with heating and lighting appliances for working both day and night at all seasons of the year.

In order to open ore ground more rapidly and extensively, it is now intended to use boring machinery on a considerable scale, and to adopt a simple and inexpensive plan of roasting and calcining the ores and bringing them to a state of regulus of good percentage.

About 190 tons of the ore in a very rough state (without any dressing) were lately brought to England, and 70 tons were calcined at Messrs. Pontifex and Wood's works at Millwall, the result of which will be seen from the report of their manager (Mr. James Napier), dated 10th August, 1882, given herewith. Mr. Napier states that no ores could be better suited for blast-furnaces than those of these mines, and that if properly sorted and burnt ores of only 4 per cent. could be made to yield a regulus of from 20 to 25 per cent. of copper, with an expenditure of not more than 10s. per ton of ore treated. The remaining 120 tons of the above very rough undressed ore were sold, and yielded nearly 5 per cent. At present prices 20 per cent. regulus would be worth nearly £14 per ton.

A few weeks would suffice to erect the necessary furnaces, four of which, to treat 1000 to 1200 tons a month, would (according to Mr. Napier) cost only about £300. The erection of the boring machinery could be completed in a short time longer, and as soon as this is done Captain Skewis considers that 1200 tons of ore could be raised monthly, to be increased as more ground is opened; but for the first year (from the date of the above machinery being completed) to begin with, he estimates that the profit would be £12,000, which would be equal to 20 per cent. on the whole capital of the company. Mr. J. Daw, jun., who personally is well acquainted with these mines, writes from Norway under date Jan. 29, 1883:—"If you can arrange for an early start we will show what stuff Nedenæs is made of before the end of this year," and in a previous letter stated he would be "in a position to pay a good dividend the first year."

There has lately been expended upwards of £20,000 on machinery, railroad with locomotive, tramways, houses, sinking shafts, driving levels, &c., all of which are available for at once carrying on the works by the present company, and enable it without delay, and with the aid of boring machinery and calcining furnaces to be cheaply and quickly erected, to lay open almost immediately additional ore ground on a much larger scale than hitherto, and to return the produce in a far more efficient and remunerative manner.

The Bratsberg Mines (also in Norway, and under the same management as Nedenæs will be) have just declared a dividend from the first 12 months' operations, without the additional machinery.

That copper companies carried on upon a large scale, and calcining or smelting their ores, are making immense profits, and commanding a high market value, the following figures will show:—

No. of Shares.	Name of Company.	Amount paid per Share.	Market Price.	Last Dividend per Share.
£ s. d.	£			
325,000 (and 24,532 debentures of £100 each)	Rio Tinto	10 0 0	22½	16s. half yearly
91,896	Tharsis (Cop. & Sul.)	10 0 0	35	£2½ half yearly
185,164	Mason and Barry	10 0 0	16	15s. half yearly
20,000	Cape Copper	8 0 0	55	£1 quarterly
50,000				£1 bonus.
(£35,000 debts)	Panulcillo	4 0 0	6½	6s. half yearly
50,000	Copapo	3 10 0	4	8s. for year.

Seeing that the Nedenæs Mines are situated within an easy distance of an excellent port, from which the copper can be shipped to England or any part of Europe, the transit being short and inexpensive; that there are no royalties to pay, and that the company will possess, its own timber for mining and other purposes, there is every reason to anticipate that it will be quite as successful as any of the above undertakings of a similar character, while the capital is comparatively very much less than in the companies referred to.

The Mesel property is also large, and is about six miles from the above. There are extensive surface workings on a large lode, but no operations have been carried on in depth. This, like the Copper Mines property, is covered with a fine forest of timber.

The only contracts made are the following:—One, dated Jan. 9, 1883, between Thomas Young Strachan and Frederick Robertson Goddard, liquidators of the Arendal Mining and Smelting Company (Limited), of the one part, and John Henry Murchison of the other part; and another dated Feb. 1, 1883, between John Henry Murchison of the one part, and Frederick Augustus Goodall, as trustee for the Nedenæs Copper Company (Limited), of the other part. These contracts can be seen at the offices of the solicitors of the company.

The vendor is one of the promoters and also one of the directors of the company, but will not act as a director until after allotment. The company will thus have the valuable aid of his long experience and his knowledge of the properties now to be acquired.

Copies of the prospectus, with Captain Skewis's and Mr. Napier's reports, can be obtained at the offices of the company.

On the motion of Mr. W. S. Lampert, seconded by Mr. TREBLE, the auditor Mr. O. Fitch Kemp, was appointed.

On the motion of Mr. SHEARWOOD, seconded by Mr. S. LAMPERT, a cordial vote of thanks was passed to the Chairman and directors.

The Chairman acknowledged the compliment, and expressed the hope that on the next occasion they would meet under still more favourable circumstances. The meeting then broke up.

SOUTH WALES COLLIERY COMPANY.

The ordinary general meeting of shareholders was held at the City Terminus Hotel on Friday, Feb. 23.

Mr. RICHARD POTTER in the chair.

Mr. WM. EDGAR WILLIAMS (the secretary), read the notice convening the meeting. The report and statement of accounts were taken as read.

The CHAIRMAN said there was no material fact connected with the working of the colliery during the past year which had been omitted from the report. With regard to the current half-year the month of January was decidedly a good one, and so far as could be seen the prospects of the trade were good, and there was every prospect that it would be the best half-year they had had for some years. There was every indication that they had turned the corner, and up to the present time they had certainly done better than in the corresponding period of last year. Having invited discussion the Chairman moved the adoption of the report and accounts.

Mr. COL. HERTWORTH (the managing director), in seconding the motion, said the report would have been a good deal more flourishing but for the fact that in the past half-year a good deal of what had hitherto been charged to capital had been charged to revenue. Every expenditure for development work and for improvements was now charged to revenue; the only addition to capital expenditure being the amount incurred in the building of two cottages. About 72 had been spent on that head in the half-year, and the total cost of the cottages would probably be about 100l. or 120l. each. The extra expenditure paid out of revenue in the first half of the past year amounted to 804l.; the principal item being the additions and new sidings at Owmilly. In the second half-year the extra expenditure was 671l., while other matters raised the amount to nearly 2000l. There, would, of course, always be charges of this kind, but he hoped they would not be so large in future. The colliery was now in a far better condition than it had ever been in up to the present time, and in a far better getting into form in which he did not think they would require so large an expenditure for improvements. The output had been large, and but for the extra expenses, to which he had referred, the profits would have been much larger. The costs of raising the coal had increased in the half-year by about 3d. per ton, owing chiefly to a rise of 5 per cent. given to the men; but even with this increase the costs had been considerably reduced during the time that the present management had been in office.

Mr. FRANKS was glad to see that the preference shareholders were at length going to receive a dividend, and he hoped that, if profits were earned sufficient to pay a dividend, the directors would pay it in September, and not wait for a year to elapse.

The CHAIRMAN said the directors would only be too happy to pay a dividend in September if they could do so consistently with the interests of the company. The dividend now proposed was for about 14 months. In reply to further questions, the Chairman said the additional expenditure referred to in the report would be paid out of revenue. The coal bought was generally obtained for the purpose of the report, and as it was yielded the company a profit.

Col. HERTWORTH, in reply to a question, said he hoped that in the current half-year the output would be increased to 800 tons a week. The report and accounts were then unanimously adopted.

The CHAIRMAN then moved—"That a preference dividend of 10 per cent. on the B and new B shares be paid-up to June 30, 1883, payable on March 7."

Mr. FRANKS, in seconding the motion, thought it must be very gratifying to the shareholders to see that dividends were about to be resumed. He thought they had now turned the corner, and that they would now do fairly well. Considering what they had had to do in the past half-year, he thought the company had been very fairly successful. The motion was carried.

On the motion of Mr. GEO. SMITH, seconded by Mr. FRANKS, the retiring directors were re-elected, and on the motion of Mr. HOLLEBONE, seconded by Mr. COLBOURNE, the usual remuneration to the board was voted.

The CHAIRMAN, in reply to a question, said he did not at present see any probability that more capital would be required, as, after paying the dividend now declared they would have a balance in hand of about 7000l.

The meeting then closed with a vote of thanks to the Chairman and directors.

MID-DEVON COPPER MINING COMPANY.

The ordinary general meeting of shareholders was held at the offices, Finsbury Pavement, on Monday.

Mr. THOMAS NICOLLS ROBERTS in the chair.

Mr. W. H. RICHARDS (the managing director) read the notice convening the meeting. The report and statement of accounts were taken as read.

The CHAIRMAN said: Ladies and gentlemen—Before moving the adoption of the report and balance-sheet I wish to offer a few observations. I may remark that the very adverse nature of the weather since September has prevented us from making such satisfactory progress as would have been possible had the season been as favourable as it was in the previous year. We have, nevertheless, accomplished more practical work during our nine months' tenure of office, to the end of 1882, than any previous eighteen months in the history of this mine can show. We have raised ore from the 45 fm. level, we have thoroughly repaired the timbering of the inclined shaft, we have driven through the dead ground at the 50 to the ore-bearing ground, that drainage being only suspended until we can get the rock-drills to work, which will be in a very few days now. We have made preparations for driving the 62 fm. level, which will be pushed forward as soon as the men have become accustomed to the rock-drills. We have erected a water-wheel, and laid down machinery for driving the drills, which, if the weather had not been so persistently unfavourable, would have been in operation two months ago, but the masons could only work one and a half or two days a week for several weeks in consequence of the heavy and continuous rains. We have raised and sold ore yielding in round figures 1700, more than the actual cost of producing it, and this notwithstanding the hindrance during the first three months of our operations by the repairs rendered necessary by the collapse of the inclined shaft. It was matter for great regret to us that the productiveness of the 45 fm. level in September and October last was suddenly arrested by a cross-curse, and the yield has fallen off so considerably that at present we have resolved to keep only three men and a boy working at that level, and now a few words with reference to the issue of preference capital authorised by the shareholders in October last. Although we view with regret the small measure of support given by the shareholders to that issue, we cannot, considering the past history of the mine, affect to be surprised at it, for what are the facts? They are these—that during the nine years' existence of the Belstone Mining Company (I quote from the printed reports) 3118l. were absorbed by the rent of offices in London, by the salaries at that office, and by travelling and hotel expenses. During the three and three-quarters years' existence of the Mid-Devon Company, up to March 25 last, 1053l. were absorbed in a similar way, added to which there was 552l. in cost of rent with the loss of a resident engineer at the mine, whose presence there was of no value, so that the money was wasted. These sums make a total of 1635l., which exceeds the value of all the ore raised and sold from the commencement of this company to Dec. 31, 1882, by 398l. I say then that we are not surprised at the backwardness of shareholders in subscribing this capital, more especially as to some of them who bought their shares in the Belstone Company at a premium, and eleven-twelfths of whose property was swept away by the liquidation, and the facts given above may have afforded some justification for shareholders in not coming forward to help us. But now the whole thing is changed. Our London expenses for the nine months, excluding office furniture and fittings, have been at the rate of less than 50l. per annum, and for the year 1883 I may venture to say, thanks to the self-denying and generous conduct of our excellent managing director, they will not exceed 60l. The item of travelling expenses also will be kept down, and we point to those in this balance-sheet in proof of it. They represent their visits by two directors each visit, and one visit by one director, or, to put it in another way, they are equivalent to a salary of 100l. per annum for each director, including the days of going and returning, 27 days. On the same line in the balance-sheet you will find that 10l. was paid for one visit by your late Chairman. There must be travelling expenses, because if the directors do their duty they must visit the mine occasionally, but I have gone into those details to show you that the money is being carefully used, and, therefore, we feel that we deserve your support in our efforts to develop your property. And what is it we ask for? Not quite 3000l. At our half-yearly meeting, in August last, I promised to take up my proportion of shares, although I stated not all at once. Practically I have taken up more than my share, as up to the end of 1882 I had taken up and paid in full 1500 shares, and have since taken up and paid in full 350 shares, so that I have only about 500 more to take up to complete my proportion. The residue, or nearly 3000 shares, if divided by the number of shareholders who have not yet subscribed, would not require an average of 15l. each from them, and I think, considering the rigid economy that is being and will be practised, we are justified in expecting the shareholders to come forward and take up these shares, so that we may proceed vigorously with the remainder of the recommendations in Capt. Skew's report, which we shall certainly do if the money is forthcoming. I would also ask the debenture-holders to give us some support. They have received (I speak of original holders) six-tenths of their principal back again, or a sum equivalent to 6 per cent. for ten years, yet, with the exception of myself and three of my friends who are debenture holders, not one holder has taken a single share. I may here observe that there is a mine (the Emily Mine) about one mile to the south-east of our mine, the lodes in which run parallel with ours, and within the last four months there has been an important discovery of ore at their 97 fm. level, which, allowing for difference of elevation, would be about 107 fms. deep in our mine. They have raised during that period about 100 tons of fine quality ore, chiefly from this 97 fm. level, and their mine is looking better than ever for continued productiveness. Now what we ask for is the pumping wheel recommended by Capt. Skew, so that we may put down the new further sinking of the capital to be subscribed is that we may proceed with the level at which in which the above important discovery has been made. Such a discovery in our larger lode would mean dividends for the shareholders very soon after such discovery had been made, indeed if we raised no greater amount of ore than has been raised during the last four months at the neighbouring mine then to the shareholders to pay a dividend to the preference shareholders. We appeal then to the shareholders and debenture holders, to the former because we are endeavouring to improve their property into a good and marketable condition, and to the latter because they are exerting themselves to keep faith with them, and make their security still more valuable to take up these not quite 3000 shares, so as to enable us to carry out, with the least possible delay, the whole of the work mentioned in Capt. Skew's report. If you will supply us with the money we will at once prepare to put down the additional pumping-wheel, but if the money

is not found in time for that to be done in the summer we shall not waver by the experience of this winter, attempt to carry out such a work in the fall of the year. In conclusion, I would say you have an excellent agent at the mine who understands his business, and works very hard to promote your interests and his own (for he is a preference as well as an original shareholder), and he will be glad to show and explain everything connected with the mine to any one presenting an order from the managing director, who will be happy to furnish an order to any one who feels inclined to see and judge for himself. With these observations, and subject to any questions which may be asked, I move the adoption of the report and balance-sheet. Mr. JOHN GOULD seconded the motion.

Mr. JAMES WILSON quite agreed with all that the Chairman had said as to the mine and as to the method of working it which had now been adopted. He had advised that method years ago, but his advice was not acted upon. By working the upper levels they had proved the truth of what he had stated, and he believed that if they went on in the same direction that good results would follow. He was exceedingly glad as, next to the Chairman, the largest shareholder in the mine, that his advice had at length been adopted. With regard to the Chairman's remark as to travelling and other expenses they were very low, and he congratulated the shareholders upon it; but with regard to the statement that he (Mr. Wilson) had charged 10l. for one visit, it should be stated that his visit extended over a week or ten days—they being busy with the erection of machinery at the time. He had served the mine religiously for 14 or 15 years, and had never taken a penny out of it to his own benefit. Mr. Wilson went on to complain of the delay in erecting the rock boring machinery, and said the directors had been nine months about the matter, but it was not yet completed. He believed, however, that the directors were doing the best they could for the shareholders, and he was confident that they only wanted capital to make the company a success.

The CHAIRMAN pointed out that it was only six months ago that the question of rock drills was talked over first. The contract for them was signed five months ago; but in consequence of the heavy and continuous rains the masons could frequently only work a day and a half or two days a week. Had the weather been fine the cost of erecting this machinery would, Mr. Wilson stated, have been a third less than it had been.

The report and accounts were then unanimously adopted.

The CHAIRMAN moved the re-election of Mr. JOHN GOULD as a director. Capt. MAY seconded the motion, which was carried.

The CHAIRMAN then moved the re-election of Mr. WILLIAM HALL as a director. This was seconded by Mr. A. P. MAY, and carried.

On the motion of Capt. MAY, seconded by Mr. STEWART GOULD, Mr. EVANS was appointed auditor.

The meeting then closed with a vote of thanks to the Chairman.

PARYS COPPER CORPORATION.

An extraordinary general meeting of members of this company was held at the offices, Finsbury-circus, yesterday (Mr. J. Y. WATSON in the chair) for the purpose of enabling the shareholders to decide whether they would strengthen the hands of the directors by the subscription of additional funds, or whether they would allow the company to go into liquidation.

Mr. FELIX F. WILSON (the secretary) read the notice calling the meeting.

The CHAIRMAN said that the directors had received applications sent in for 2426 shares. Mr. Macmillan had sent in application for 50 shares, and as Mr. Macmillan was a barrister, and might be of considerable service in the negotiations with the lords, he (the Chairman) had asked Mr. Macmillan if he would take 200 shares and fill the vacancy on the board, and Mr. Macmillan had assented, and as Mr. Macmillan would probably be able to influence subscriptions to some further shares he thought it very desirable that that gentleman should be elected on the board. It would be a most unfortunate thing to stop the mine, and if the amount required was not made up in the room, he should propose that the meeting be adjourned for a week. He might mention that if elected on the board Mr. Macmillan would fill the place of Mr. Daukes.

Mr. BLADON asked whether they had raised any ore?—Mr. F. R. WILSON said that summer was the time to deal with the ore, and the weather had been too bad to do anything with it.

The CHAIRMAN said they were looking forward to dry weather in order to prepare the ore for market.

The CHAIRMAN, in reply to a further question, said that at the meeting of the company, about a month ago, a statement of the assets and liabilities of the company was laid before the shareholders.

A conversation ensued, and a general opinion was expressed that it would be a great pity and misfortune that the company should be allowed to go into liquidation. Some of the gentlemen present subscribed for shares, and the CHAIRMAN said he had no doubt the small balance required would be subscribed by shareholders who were not present.

In the end the following resolution, passed at the meeting held on the 5th inst., was confirmed:—"That it being essential in the interests of the company that some additional capital be forthwith raised, the directors are hereby expressly authorised to issue all or any of the 7667 shares now unallotted at such discount, not exceeding a discount of 50 per cent., or 10s. per share, as they may determine."

On the motion of Mr. BLADON, a vote of thanks was passed to the Chairman and directors, and the meeting broke up.

NEW VAN CONSOLS AND GLYN MINING COMPANY.

The first ordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Thursday.

Mr. JOSEPH ROCK, in the absence of Mr. Pryce Jones, was voted to the chair.

Mr. JAMES COOPER (the secretary) read the notice convening the meeting, and a letter from Mr. Pryce Jones, expressing regret that he was unable to attend the meeting, as he had hoped and intended to have done. Mr. Jones added that he had made many sacrifices for the mine, and was prepared to do more for it; but if the policy of re-construction was not heartily supported by the shareholders it would be impossible to go on. In the past year they had raised more ore than in any previous year's working of the mine. He (the secretary) also read the minutes of the preceding meeting, with the view of reminding the shareholders of the decision which was then arrived at.

The CHAIRMAN said the shareholders would recollect that at the last meeting of the old company it was unanimously resolved that the affairs of the United Van Consols and Glyn Company should be handed over to the present company.

The principal object they had in view was to do away with the different classes of shares, and to create shares of one uniform value, and the next thing was to re-construct the company as expeditiously and as inexpensively as possible. On this point he thought the shareholders would be fully satisfied. They engaged the services of an eminent lawyer in these matters, Mr. Stackpool, and he was happy to say that the bill for the winding-up of the old company and re-constructing it was 75l. only, including 25l. for stamps on the legal documents and a large amount of printing. The remuneration of Mr. Bowley Morris, the liquidator, had yet to be fixed. It would be recollected that the ordinary shares in the old company were to be exchanged for shares in the new company, subject to a call of 2s. 6d. per share, payable 1s. per share on taking them up and three instalments of 6d. each. The preference shares, which had been entitled to a 10 per cent. retrospective as well as prospective dividend, were to be exchanged in the proportion of three new shares for two old ones, with the same liability as the ordinary shares on two out of the three shares. The holders of about two-thirds of the shares had assented to the re-construction, whilst the holders of 100l. in debentures had accepted 972 shares. The total amount received on the new shares was 1410l. 9s. 6d., in addition to which Mr. Cooper had just informed him that nearly 100l. more had been paid in that morning. Of course some of those who had assented had not yet paid. The debts of the old company, which were taken over, amounted to about 3000l., and the monthly cost-sheets for the four months amounted to 1040l., the costs having been reduced to the lowest possible point consistent with the development of the mine and the raising of ore. The royalties and rents paid in the four months amounted to 100l., and the interest on the debentures amounted to 110l. The London expenses were 125l., including the large amount expended on printing and postage in connection with the re-construction of the company. Of course the directors had taken nothing for their services. Three parcels of ore had been sold, realising 755l., but had the price obtained been anything like a fair one they would have met the whole of the expenses out of the returns. They were thus left with about 800l. towards meeting the debts.

The SECRETARY said they had actually paid off about 1153l. out of the 3 00l. of debt.

The CHAIRMAN added that what appeared to be wanting was the unanimous support of the shareholders in the carrying out of the scheme. If that were not forthcoming the thing could not go on. The Chairman also stated that Mr. F. M. Taylor had taken great interest in the mine, and had constructed a model of the workings, from which the shareholders would see the course of the operations.

The SECRETARY, in reply to a question, said the directors would at the next meeting of the board decide the limit of time within which the shares not yet applied for should be offered to the shareholders who were at present entitled to them, and after that limit should have expired the shares would be forfeited. In reply to a further question, it was stated that the debenture debt amounted to 4200l.

Capt. ROACH explained the system of working which is being adopted, referring in very hopeful terms to the eastern portion of the property approaching the Van Mine, upon which there is a run of 700 yards of virgin ground. Mining experts and geologists who had visited the mine had expressed very high opinions of this portion of the ground, and there was every reason to believe that in their progress eastward very good bodies of ore would be intersected.

Mr. F. M. TAYLOR added that the mine would have paid if they had had anything like a normal price for lead.

On the motion of Mr. SANDERSON, seconded by Mr. CROSS, a vote of thanks was passed to Mr. Taylor for the trouble he had taken in preparing the model. Mr. Taylor, however, declined to receive the compliment.

Mr. J. C. BOLTON was appointed auditor, an amendment proposed by Mr. TAYLOR naming another gentleman to that position having been negatived.

On the motion of Dr. BOWLEY, seconded by Col. PEARCE, a vote of thanks was passed to Mr. Rock for presiding, and the meeting then closed.

HORNACHOS.—At the extraordinary general meeting, on Wednesday (Mr. Thomas Steven in the chair), the Chairman stated that Mr. Paristot, having been unable through illness to visit the mines, and having resigned his office as Chairman and managing director, the directors had sent out Mr. Thomas Rickard, to inspect and report on the mines and management there, and Mr. Thos. H. Moore had also gone out with instructions to thoroughly examine the accounts and suggest where economy can be applied without decreasing the efficiency. In the meantime,

in order to preserve the property further funds are absolutely necessary for payment of liabilities and carrying on the works with energy now that all the new machinery is finished. After various observations from some of the shareholders, the first resolution was moved by the Chairman, seconded by Mr. Helton, and carried unanimously, authorising the directors to borrow 25,000l. on 10 per cent. debentures, redeemable by yearly drawings from and after March, 1885. The Chairman then proposed the second resolution, which was seconded by Mr. Pattison, and also carried unanimously, sanctioning the increase of the capital of the company by the creation of shares, to be issued to the debenture-holders, as and when applied for in exchange for debentures. The meeting was then adjourned until such a time as Mr. Rickard should return and make his report on the mines. A vote of thanks to the Chairman concluded the proceedings.

THE TIN TRADE.

Messrs. EBELENG and HAVELAAR (Rotterdam, Feb. 28) write:—No new feature has presented itself in our tin market during this month. Dullness has prevailed to a great extent, but prices have, nevertheless, been remarkably well maintained. Even this month's heavy shipments from the Straits have as yet failed to change the views of the majority of holders, who, it must be admitted, show undiminished confidence in the article at its present value. At the same time this circumstance has been the chief cause of the inactivity which still characterises our market, the trade supplying their wants in London where tin can be had cheaper. Borneo has been very sparingly offered. From 56½ fl. advanced to 57½ fl., with a small business only. The price has since receded to 57 fl., which is our closing quotation. The demand for parcels of Billiton on the spot has again been limited. Prices during the first week of the month advanced to 56½ fl. for 14 days' prompt, May delivery being dealt in at 57½ fl. There has since been a decline of 1 fl., at which reduction, however, the buying was pretty general. We now quote 56 fl. for parcels on the spot, forward deliveries commanding ½ fl. more. About 11,000 piculs Billiton offered yesterday in public sale at Batavia, fetched the average price of 64½ fl., costing to sell here about 57 fl. per steeper. The ensuing sale comprising the same quantity will be held on Tuesday April 24.

The position of Banca tin in Holland on Feb. 28, according to the Official Returns of the Dutch Trading Company, are:—

	1883.	1882.	1881.
Import in February.....Slabs	14,671	18,744	9,673
Total two months.....	22,382	35,179	19,934
Deliveries in February.....	10,808	7,500	15,870
Total two months.....	18,436	14,400	22,088
Stock second hand.....	33,810	36,044	37,395
Unsold Stock.....	75,500	70,900	55,470
Total stock.....	109,410	106,944	92,865
Alloft.....Peculs	9,100	8,400	5,400
Statement of Billiton.			
Import in February.....Slabs	6,900	7,400	2,300
Total two months.....	34,200	19,848	10,500
Deliveries in February.....	7,659	7,242	6,802
Total two months.....	12,680	14,919	12,882
Stock.....	72,839	29,945	51,537
Alloft.....Peculs	19,000	26,000	22,000
Quotation, Feb. 28—Banca.....	57 fl.	67½ fl.	53 fl.
Billiton.....	56 fl.	67½ fl.	53 fl.

These returns of Banca and Billiton for 1883, compared with those for 1882, exhibit—A decrease of the import for February of 121 tons; an increase of the import for the two months of 49 tons; an increase of the deliveries for February of 117 tons; an increase of the deliveries for the two months of 85 tons; an increase of the stock second hand of 123 tons; an increase of the unsold stock of 178 tons; an increase of the total stock of 1417 tons; a decline of the quotation of Banca of 17l. 10s. per ton.

Messrs. STRAUSS and Co. (London, Feb. 28) issue the following Statistics of Tin:—

	Jan. 31.	Feb. 28.	Feb. 28.
	1883.	1883.	1882.
Straits and Australian, spot.....Tons	4,598	4,889	7,170
Strait, alloft....." landing.....	1,041	492	661
Strait, alloft....." "	928	2,200	1,229
Australian alloft.....	1,288	1,145	1,292
Banca, on warrants.....	1,363	1,025	1,126
Billiton, spot.....	2,300	2,276	936
" alloft.....	880	1,260	1,090
Australian tin in Holland.....	5	5	42
Stocks in America, including quantity alloft.....	3,660	3,600	2,350
Total.....	16,063	16,892	15,836
Prices of Straits and Australian.....	£32 0	£33 0	£111 0
Deliveries during month in London.....	1,257	1,202	955
" Total....." Holland.....	325	522	509
" Total....." "	1,582	1,724	1,464

Shipments during the month from Straits to London 1550 tons, from Australia to London 525 tons, from London and Holland to America 205 tons, from Straits to America 600 tons, from Australia to America 100 tons. Banca in Trading Company's hands and alloft 2962 tons.

THE COPPER TRADE.

Messrs. HARRINGTON, HOBAN, and Co. (Liverpool, Feb. 28)—Chilli copper charters for second part of this month have not yet come to hand but are hourly expected. During the past fortnight Chilli bars have varied but little in price, and with a dull tone only a small business has been transacted at from 65l. 15s. down to 65l. 2s. 6d. spot, 66l. 12s. 6d. to 65l. 15s. forward. Market closes dull with sellers of spot good ordinary brands at 65l. 5s. per ton. The Celide R., from Port Nolloth to Swansea, with 500 tons Cap. ore, is reported as a total wreck. The following business has been done in furnace material:—At Liverpool: 627 tons Peruvian ore, at 12s. 9d. to 13s. 1½d.; 50 tons Mexican ore at 13s. 1½d.; 60 tons Florence ore (rich produce) at 13s.; 85 tons Italian ore to arrive (low produce) at 12s. 6d.; and 100 tons (better quality) at 12s. 7½d.—At Swansea: 40 tons Bolivian ore, and 370 tons Bolivian regulus, ex Prince Alfred, at 13s. and 13s. 3d. per unit respectively.—Precipitate: 50 tons English at 13s. 6d. At yesterday's Swansea sale by tender, 107½ tons ore average produce 8½ per cent. only realised 11s. 2½d. per unit. Import of Chilli copper during the past fortnight 1700 tons fine, against 1138 tons fine same time last year; delivery 1240 tons fine, against 1465 tons fine; import of other copper during the past fortnight 2224 tons fine, against 1176 tons fine same time last year; delivery 171 tons fine, against 870 tons fine. Arrivals here during the fortnight of West Coast S. A. produce: Magellan, a sloop Valparaiso, 80 135 tons bars; Espana, a sloop Lota, 560 tons bars, 140 tons ingots; Garland, from Valparaiso, 208 tons bars; Ouro, from Pisco, 407 tons ores; Rebecca, from Pisco, 112 tons ores.—At Swansea: Edgar, from Carrizal, 650 tons regulus; Gadya, from Tocopilla, 375 tons ores, 421 tons regulus.

Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available, we estimate at—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool.....	810	15,511	535	—	—
Swansea.....	813	3,994	7,408	—	—
Total.....	813	4,904	22,919	535	—

Representing about 25,824 tons fine copper, against 25,364 tons Feb. 15; against 24,521 tons Feb. 28, 1882; 32,835 tons Feb. 28, 1881; 29,953 tons Feb. 28, 1880.

Stock of copper contained in other foreign ore and Spanish precipitate, 3323 tons fine, against 3581 tons Feb. 28, 1882. Stock of Chilli bars and ingots in Havre, 3422 tons fine, against 2390 tons Feb. 28, 1881. Stock of Coro Barilla in Havre, 25 tons fine, against 33 tons Feb. 28, 1881. Stock of copper other than Chilli in Havre, 120 tons fine, against 530 tons Feb. 28, 1881. Stock of Chilli copper alloft and chartered for to date, 8800 tons fine, against 10,800 tons Feb. 28, 1881. Stock of foreign copper in London, chiefly Australian, 4600 tons fine against 3900 tons Feb. 28, 1881.

Messrs. HENRY R. MERTON and Co. (Leadenhall-street, Feb. 28) issue the following Statistics of Copper:—

	1883.
Stocks in Europe:—	
Chilli bars, Liverpool and Swansea.....Tons	22,919
Chilli ingots, Liverpool and Swansea.....	535
Chilli ores and regulus, Liverpool and Swansea (fine).....	2,370
Other furnace stuff, Liverpool and Swansea (fine).....	3,323
London, Foreign copper (chiefly Australian) and Landing.....	4,766
Chilli bars, ingots and Barilla in Havre.....	3,474
Other copper in Havre.....	125
Alloft, and chartered from Chilli to Europe (advised by mail):	
Ores and regulus (fine).....	1,292
Bars and ingots.....	4,191
By cable, ores and regulus (fine).....	650
Bars and ingots.....	2,350
Alloft from Australia to Europe (advised by mail):—	
Fine copper.....	343
By cable: Fine copper.....	650
Total.....	46,942

Price of Chilli bars, 65l. per ton.

Messrs. RICHARDSON and Co. (March 1) write:—The stocks of Chilli copper produce remaining unsold at Swansea on Feb. 1 were:—Ore, 842 tons, since arrived, 375 tons, sold, 404 tons; regulus, 4187 tons, arrived, 1855 tons, sold, 2048 tons; copper, 7795 tons, sold 337 tons. The present stocks are Chilli ore, 813 tons; regulus, 3994 tons; copper, 7408 tons. Cape ore, 1658 tons. New Quebrada ore, 3573 tons. Newfoundland ore, 1116 tons. Spanish ore, 152 tons; regulus, 950 tons; copper, 27 tons; precipitate, 1398 tons. Portuguese precipitate, 55 tons. British ore, 432 tons. Total unsold at Swansea:—Ore, 7

BRITISH MINES.

EAST LONG RAKE.—H. B. Vercoe, March 1: The lode in the dump sinking in the sole of the 50 west has not been so productive during the last few days: to-day, however, it looks very much better, the cavity referred to in my last report being more open, and producing splendid lumps of bright and pure galena, and I am hoping for further improvement. The lode in the 40 west continues to produce good lumps of ore, but not yet in regular quantities. There is a gradual

KILLFRETHER.—John Michell, Joseph Tamblyn, March 1 : Engine-shaft : The lode in the 50, driven west of cross-course, is still improving, now worth 25*l*. per fathom. This level driving east is worth 5*l*. per fathom. A rise in the back, east of cross-course, is worth 15*l*. per fathom. Two slopes just behind the 50 and east are worth 12*l*. per fathom each. The lode in the 30 end east is produced

prepare to stoppe the back of the 117, so as to get up to meet the winze from the 89. They will get it ready this week, and I purpose putting the other 2 men from the midway there also next week, as it is important that we shall hole the winze as soon as we can, which will open up a large amount of profitable ground for stoping; the lode in the winze has again improved this week, and

WELL SINKING.—Messrs. Swindell and Burnell's treatise on Wells and Well Sinking, in Weale's Rudimentary Series, has long been recognised as a reliable text-book, although it had become somewhat antiquated, and Messrs. Crosby Lockwood and Co., of Stationers' Hall-court, have performed a useful service to hydraulic engineers in issuing a revised edition, with a new appendix on the qualities of water. In the appendix, which occupies nearly half the

Prince of Wales, 6s. to 8s.; South Penstruthal, 1 to 1½; West Seton, 14 to 16; West Gonamena, 3s. to 5s.

The Mining Market: Prices of Metals, Ores, &c.

Then, again, statistics of Chilian produce which have just been published are not satisfactory, as they show the imports during the past fortnight to have been 1750 tons, and the deliveries 1240 tons, against 1135 tons and 1465 tons respectively for the same time of last year, while the imports of other kinds of copper for the same period have been 2254 tons, and the deliveries 1711 tons against 1178 tons and 879 tons respectively. The stock of Chilian and Bolivian produce in first and second hands in Liverpool and Swansea has been increased by 490 tons, and amounts to 25,324 tons, against 25,364 tons on the 15th ult., but

COPPER mines, except a few low-priced speculative shares, have been quite neglected. Bedford United, $1\frac{1}{2}$ to $1\frac{3}{4}$; a fine course of ore has been intersected in the 42, worth 10% per fathom. Devon Great Consols, $\frac{1}{2}$ to $\frac{3}{4}$; Devon Great United, $\frac{1}{2}$ to $\frac{3}{4}$; Gunnislake (Clitters), 2 to $2\frac{1}{2}$. Langford, 9 to 11; the bottom of the mine has at length been reached, and much interest now attaches to the status of the copper lode, and its connection with the silver lode, which will be shortly ascertained. New Caradon, 6s. to 7s.; the lode here is improving. New West Caradon, 6s. to 8s.; Mellanear, 31 to 40.

The Garth Merthyr Steam Navigation Collieries Debenture Bond, the prospectus of which appears in another column, are being applied for in a manner which shows that the public have confidence in the undertaking, and that the liberal manner in which it is proposed to treat the debenture-holders is evidently very favourably affecting applications, so much so that it will be necessary shortly to close the list. In concluding a careful report upon the property, Messrs. Jones & Co. say:—“The property is well situated, and the management is of the best.”

posed sum of 50,000l., after paying the vendor 25,000l. (15,000l. of which he takes in debentures) is ample to carry out the proposed sinking, and otherwise provide the means for carrying on the work; that with regard to the method of repayment to be adopted, without going into detail, we may say we quite approve with the proposal as a whole, which is in reality to pay back the whole capital originally subscribed as soon as possible, and at the same time pay a dividend on the share capital so long as business allows of this; and in our opinion 50,000l. is a moderate capital to have expended on a colliery with a coal field and railway connection and other facilities such as Garth possesses; and with the management under which it is proposed to carry on the colliery we have little doubt of its success.

Bedford United, 1½ to 1¼; the fine course of ore gone through in the 30 fm. level (nearly 40 fms.) appears to be coming in at the 42 east, and a correspondent writes that some splendid stones of ore are being brought up from that end exactly the same in character as in the level above, it is assumed that they are on the eve of a great discovery. With a similar course of ore in the 42 there would not be much difficulty in increasing the returns to 200 tons a month. The financial position of the company is said to be satisfactory, and that everything save current expenses are closely paid-up, and a good balance at the company's bankers.

Devon Great Consols, 4½ to 5½; the western shaft at Watson's is down nearly 12 fathoms below the 20 level east, and showing good ore ground for stopping. The other points of operation are looking well, and good progress is being made at the reduction works.

Devon Great United, 3 to 4; a winze is being sunk in the bottom of the 60 fathom level, where the lode is yielding some good quality copper ore and mundic.

Drakewalls, 3 to 4; the communication at the adit level between the engine-shaft and Brenton's shaft, has been completed, and, as the manager states, the importance of this to the company cannot be overestimated.

Roman Gravel, 9 to 9½; the monthly sale yesterday of 250 tons of lead ore realised a somewhat improved price, the total amount of sale realising 22677. 10s. The mines continue to look well.

East Wheel Rose have "advanced ½, closing 1½ to 1¾. The dealings in these shares continue to increase in extent, thus proving that these shares are being more influentially bought."

Kit Hill, 3 to 4; as will be seen by the agent's report, the drive of the several levels cannot be considered satisfactory.

Mounts Bay, 15-16 to 1-16; an advance of 1-16, with a decided scarcity of shares reported.

Old Shepherds, 1 to 1½; this market is reported still to continue "a favourite one for investors. It is at present very sensitive, and the increasing monthly sales are likely to give a great fillip to the shares."

South Devon United, 3 to 4; the 110 fathom level, east of Brook's engine-shaft, continues to look well, and promising for large quantities of copper ore.

Tresavean have advanced 3-16th closing; a very firm market at 1-16th to 1-3-16th, as it is said the shares are influentially held.

Wheal Castle, 1 to 1-16th; a very good market, with the appearance of a good advance in them.

Wheal Coates, 4 to 5; the new lode has, as it is reported, greatly improved at the 70 level, and the prospect of cutting it at the 60 is looked forward to with interest, only five more fathoms to drive.

California Gold, 1 to 1-16th; the usual weekly telegram from the manager at the mine, giving mill run and proceeds for this week, has not yet come to hand. The report for week ending Jan. 27 states that the average for the week's milling was \$17.20. per ton.

Henriett, 3 to 4; the advices for the week ended on Wednesday states that the ore extracted and forwarded to the mills was 312 tons; settled, 226 tons = 460l. The mine was worked at a loss during January.

Kobinoor and Donaldson, 1 to 1-16th; some recent shipments of ore from the Donaldson Mine have realised \$61 per ton net, and the measured reserves of this mine, stated by telegram received this week, are 12,500 tons. The Champion shaft has also been completed, and a rich body of ore is being opened up in the bottom of the mine.

Richmond, 6½ to 7½; the usual telegram from the mines states that the week's run was \$15,000 from 330 tons of ore with one furnace. During the week the refinery produced doré bars to the value of \$12,000. The superintendent's report of the progress of the prospecting and dead work for the week ended Feb. 5 has been received. Obeying the instruction conveyed in the attempts at wit of certain uneasy and non-practical shareholders because the foreman stated whether the progress making at each of the several points of operation was favourable or otherwise, the objectionable word "favourable" has been wisely eliminated from the report. If shareholders become fussy to hide their want of knowledge it is best to let their fun have full scope though the result be, as in the present instance, to prevent nine-tenths of the shareholders from forming any idea whether the works are going on satisfactorily or otherwise. But they have got rid of the word favourable. The report states that the 300 north-west drift from chute under No. 16 chamber has been run 13 ft. Total, 100 ft. In broken limestone. The 700 south-west drift from main west drift has been run 8 ft. Total, 181 ft. In iron stained limestone containing cavities. The 1050 north-west drift from station has been extended 11 ft. Total, 420 ft. In crushed limestone. The 1050 north-east drift from north-west drift has been run 27 ft. Total, 161 feet. In crushed limestone.

Ruby and Dunderberg, 1½ to 1¾; the weekly report again advices an improvement in the ore body at the Home Ticket Mine; on the 65 ft. level it had increased to 12 ft. by 16 ft. The weather was still interfering with the shipments of ore from the mines; 55 tons had been sent down from the Home Ticket, and there were 60 tons ready for shipment. From the Dunderberg Mine 6 tons of tribute ore had been shipped, and there was a further quantity ready to be sent down. It is noticed that the number of men working at both mines has been somewhat increased.

Victoria Gold (Venezuela), 1 to 1½; a telegram has been received (Feb. 26) from Mr. Danby, the manager: "Have discovered new lode; mine fully equals all the reports, and surpasses all that you have heard. Have sent off the sample ton."

A public drawing will take place on Tuesday of 50 certificates of 100l. each of the Corporation of Foreign Bondholders, at the Council House, Moorgate-street.

The Carn Camborne Tin and Copper Mining Company's general meeting was held on the mine at Camborne on Wednesday, and full particulars will appear in our next week's Journal.

Mr. Henry Johnson, jun., Sandwell Park Colliery, has been elected a member of the North of England Institute of Mining and Mechanical Engineers.

The Malta Railway was opened by the Governor and his staff on Wednesday, when general satisfaction was expressed. Yesterday the traffic was in full operation, with heavily laden trains running.

At Swansea Ticketing, on Tuesday, 1075 tons of ore, of 8½ average produce, and containing 88 tons 13 cwt. of fine copper, were sold for 4991l. 13s., being 4l. 12s. 10d. per ton of ore, 11s. 2½d. per unit, or 56½ per ton of fine copper in the ore, and an average standard of 817. 17s. 4d. for 9 per cent. produce. Subjoined are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Nov. 7, 1882	1192	8 11	8 10	47 12	6	13s. 5¼d.
Feb. 27, 1883	1075	8 11	8 10	47 12	6	13s. 5¼d.

Compared with the last sale the decline has been in the standard 9l. 11s. 6d., and in the price per ton of ore 15s. 9d. There will be no sale on March 13.

WEST POLBRENN.—The ordinary meeting of shareholders was held at the offices of the company on Tuesday, when the accounts showed a balance in favour of the mine of 251l. 12s. 11d., with no liabilities due and unpaid. The report of the manager is well worth the perusal of those interested in rising properties. At the request of the meeting Mr. John B. Reynolds presided, and the circumstance of his indisposition seemed to have a depressing effect, but we are requested to state that he has simply been suffering from a very severe cold, from which he is as quickly recovering as possible. The full report of the meeting appears in our columns to-day and is specially interesting at the present moment.

TRAVANCA.—The meeting is fixed for March 22. The accounts are expected to be of a very favourable character, and in consequence of the increased returns a good balance may be anticipated as being in favour of the adventurers. Taking into consideration the position of the works at the mine, the manager (Capt. Vivian) will be enabled to give a more than usual encouraging report. The lords in this instance are H.R.H. the Prince of Wales, Mr. Enys, and the lords of Ty Tras. The existing leases have 20 years to run, and those who

know these landowners will agree that for all practical purposes, and subject to the very favourable conditions of the leases, no difficulty will arise on the subject of renewal. The remarks of the Chairman of West Polbreen meeting respecting H.R.H. the Prince of Wales and the Duchy office were well deserved, and remembering the Dolcoath difficulty it is most refreshing to know that in the highest quarters such facilities are afforded to miners, and that in the mines of the Prince those who work will never be vexatiously or unfairly treated. As to Dolcoath the position taken up by Mr. Basset cannot be judicious or profitable to himself, and, therefore, there appears no reason whatever to suppose that his example will be followed by others.

NEDENAS COPPER COMPANY (LIMITED).

The prospectus of this company will be found on another page of this day's Journal. Three of the directors belong to the board of the highly successful Bratsberg Company, and the mines will be under the same management, while the profits and dividend for the first year are expected to be even larger than they have been at Bratsberg, the extensive plant of machinery being erected at a very large cost, and the works in good order for immediate extensive operations. There are four shafts, the deepest of which is 90 fms., and the lode has greatly improved in value in sinking, the operations having already proved a rich lode for a mile in length. Levels have been driven at 50, 60, and 75 fms. through a good lode, but no levels have yet been driven below these, though the lode is richest at the bottom. A large sum has been realised from returns of copper, and it is estimated that nearly 4000 fms. of profitable ore ground are laid open. In a report by Captain A. W. Daw (one of the managers of Bratsberg), dated Feb. 15, he states that this is "undoubtedly one of the finest mineral properties in this country (Norway), having a practically unlimited extent of profitable ground on the course of the lodes traversing the property, and unusual facilities for sending the returns to market."

It is important to note that every part of Skytmur and Boilstad Mines has given a good yield of copper, that they improve as they become developed in depth, and that a very large extent of profitable ground is already laid open for working, worth from 3 to 8 tons of copper ore per fathom. At the present time I consider the mines are in the best possible position for returning large quantities of ore to a good profit, which would be regarded as amount to be in proportion to the quantity raised. As regards the profit that you will be able to make, I should say that you would at least realise all that has been estimated, the mines being now in a good state of development, and having perfect arrangements for treating ores. It is intended to work the mines vigorously and extensively with boring machinery, and to raise the ores to a regulus of from 20 to 25 per cent. of copper, from which it is estimated that the profit for the first year will give at least 20 per cent. on the whole capital of the company, to be increased as the mines become more opened. About 70 tons of the ore in a rough and undressed state were lately calcined at Messrs. Pontifex and Wood's works, at Milwall, and their manager, Mr. Napier, reports most favourably of the results, and states that no ores could be better suited for blast-furnaces, while the expenditure should not exceed 10s. per ton of ore. The furnaces required can be erected in a few weeks at a very moderate cost, and there are about 1500 to 2000 tons of ore at surface ready to be treated. That copper companies carried on upon a large scale, and calcining or smelting their ores, are making immense profits, and commanding a high market value, the following figures show:—Rio Tinto shares, 10l. paid, are at 22½; Tharsis, 10l. paid, 35½; Mason and Barry, 10l. paid, 16½; Cape Copper, 8l. paid, 55½; Panulicillo, 4l. paid, 6½; Copiapo, 3½l. paid, 4½. All these companies have immense capitals, and are paying large dividends. Seeing that the Nedenas Mines are situated within an easy distance of an excellent port, from which the copper can be shipped to England or any part of Europe, the transit being short and inexpensive, that the properties are mostly freehold, and no royalties to pay, while the company will possess its own timber for mining and other purposes, there is every reason to anticipate that it will be quite as successful as any of the above undertakings of a similar character, while the capital is comparatively very much less than in the companies referred to. There are 30,000 shares of 2l. each, and of these only 14,500 remain to be offered for subscription. The deposit is 2s. 6d., and the allotment payment 7s. 6d. per share.

INDIAN GOLD MINES.—The gold question appears to be still receiving attention in India, and a competent correspondent writes that it is still generally believed that the enterprise will ultimately prove to be a great success. An elaborate retrospect of Indian gold mining in 1882 is commenced in the South of India Observer, of Ootacamund, and from the character of the first article the series promises to be a complete history of the subject, which cannot fail to be interesting.

THE ORGANOS GOLD MINES.—The usual monthly report from this mine will be found in its proper place in our columns. The mines, as evidenced by the value of the lode at the Choro workings, continues rich, and appears to be likely to prove a source of good profit to the shareholders. Very little, it appears, is mentioned of the incline and the machinery, but in private letters it is stated that these are all very nearly completed, and the next month's report should therefore bring advices of crushing on a comparatively large scale. Judging by the reports received from time to time there is little doubt this will prove of a satisfactory nature.

LEADHILLS.—It is reported that these shares (with 6l. per share fully paid) have been in demand this week, at 2½ to 3, and it is said that they are likely to have a good advance, seeing that the mines are opening out well. The half-yearly general meeting of shareholders was held on Thursday last, and as will be seen by the report, which appears in another column, the explicit statement made by Mr. Peter Watson, the Chairman and Managing Director of the company, exhibits the highly satisfactory condition of the mines and smelting works, as well as the strong financial position of the company. Looking at the great depression of the metal market, the directors and the management generally are to be congratulated in having placed this undertaking in such an excellent position, and having paid off the debit balance of 5000l. (most of which had been expended in machinery, surface improvements, in sinking shafts, &c.), they were enabled in August last to pay a dividend of 3s. per share, and, as stated by the Chairman, they would in all probability be in a position to declare a dividend (possibly this month) of about 4s. per share. This satisfactory result, considering the severity of the winter—the most inclement season which has been experienced in that part of Scotland for many years—certainly augurs well for the future of the company.

TREVAEAN.—Reports from this mine confirm former predictions as to the improving character of Caddy's lode. It appears that the stamping machinery already erected can treat fully 150 tons of ore-stuff per week. Another 16 heads of stamps are now being erected, which will enable the company to treat 220 tons per week. The quality being high, and the yield per ton increasing in depth, we are assured must soon double the value of the monthly sales. It is also stated that Williams's shaft is cleared, and laddersway to the depth of 130 fms. from surface will be completed in a fortnight. The manager states that so soon as this is done a large number of high paying tribute bargains can be set for breaking both copper and tin.

TANKERVILLE GREAT CONSOLS.—From the report, published in another column, it will be seen that the Tankerville portion of the mine has considerably improved this week, the 232 east and west being worth together 2½ to 3 tons per fathom. At the Pennerley portion of the property the 120 east (an important point) is looking well for an improvement, while in sinking the shaft below the 80 the lode is worth 5 tons of lead ore per fathom. Two stopes in the back of this level being worth together 8 to 9 tons per fathom, and two stopes in the level, east of the cross-cut, 4½ tons per fathom. At this portion of the mine 80 tons of ore have been sampled for the month. At the Potter's Pit it is satisfactory to find that the water is gradually going down, so that the rich ore ground at this part will soon become available, when no doubt an additional 40 or 50 tons

of ore per month will be obtainable. At the Bog Mine the lode continues to look equally well as at last week, and 120 tons of lead ore will be sold on March 8. We understand that several of the shareholders have during the past week taken their proportion of the preference shares, while others have promised to do so, seeing that it is equally to the interests of all that this should be done on behalf of the company. Transactions at about 6s. 6d. to 8s. 6d. have been reported during the week.

EAST WHEAL ROSE.—It is announced another large parcel of silver-lead is ready for sale and that the various points now being worked are improving in value. The dry weather of the last few days has enabled the men to make rapid progress with surface work, and the next monthly sale is expected to be much larger, for the steam winding-engine and tramways are now erected and will be at work very shortly. The quality of the ore, it is said, is improving as further and deeper developments take place.

OLD SHEPHERDS.—Rapid progress is being made with the skip-road, and seeing the steam-whim and this will be ready in a few days, large quantities of ore-stuff will be hauled to surface very shortly. The permanent dressing apparatus is on the mine, and will, it is understood, be erected forthwith. Another parcel of silver-lead is ready for sale, and it is said that, with the new appliances, the future monthly sales are likely to be quadrupled. The caunter lode at the 34 has considerably improved, and all other points maintain their values.

SOUTH PENSTRUTHAL.—The probability of the great deposit of copper ore being soon met with beneath the mundic is most encouraging, and in about one month's further sinking of the shaft will be proved. For some weeks past branches have been found crossing the shaft towards the lode bearing yellow copper ore, a most promising indication. The shaft is sinking not in, but to the side of the lode, which will be proved about 5 fms. deeper by a cross-cut. There has been a fair amount of business in the shares.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. Webb and Co., of the Stock Exchange, and Finch-lane, has been:—Commercial, 210½ to 213; Continental Union (Limited), 27½ to 27¾; ditto, 1869 and 1872, 18½ to 18¾; ditto, 7 per cent. pref., 27½ to 27¾; Gas Light and Coke, A (ordinary), 184½ to 185½; ditto H, 7 per cent. maximum, 138½ to 139½; ditto 4 per cent. debenture stock, 106; Imperial Continental, 201½ to 202½; London, 208 to 209½; Oriental (Limited), 6½; Rio de Janeiro, 24½; South Metropolitan, B, 187½ to 193½. Gas stocks steady, and very firm, especially the Metropolitan Company.

INSURANCE SHARES.—According to this evening's report of Messrs. W. L. Webb and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—Alliance Marine (Limited), 23½; City of London (Limited), 1½ to 1; Employers' Liability Association Corporation (Limited), 3½ to 3¾; Fire Insurance Association (Limited), 2½ to 2¼; Guardian, 67½; Law Fire, 17½ to 17¾; Ocean Marine, 6½ to 6¾; Royal Exchange, 420. Insurances idle. Commercial Union flat on the report and dividend.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. W. Abbott, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Klrk, Birch-lane, writes:—Opening: The North British dividend is announced as 5 per cent. exceeding expectations, and the Stock is nearly 2½ higher. Grand Trunk continues depressed; no one expected a better dividend than 3½ for the Third Preference, but the market is so inflated with weak speculative buying that it lies at the mercy of the jobbers. The Ordinary are down a further ½, and the Third Preference, ¼. Mexican Railway as yet does not rally from yesterday's fall of 4 per cent. price being still 137½. Orita, 1½ to 1¾; Organos, 1½ to 2½; Herodfoot, 6s. to 8s.; Wheal Agar, 14½ to 15; Akankoo, ¾ to ¾; Broadway, 8s. to 10s.; Canadian Copper, ¾ to 1; Indian Glenrock, ¾ to ¾; New Quebrada, 4½ to 4¾; Tocopilla, 6s. to 8s.; Callao Bis, 21s. to 23s.—Closing: A moderate recovery set in towards the close, Mexican Railway recovering to 138½, 139. Trunks are being moderately bought at better prices, Ordinary being 23½ to 23¾; and Third, 58½ to 57. But for the recent collapse, we should probably have seen the Thirds in active demand with the present dividend at 62 and the Ordinary nearer 28 than 24. At 15½ Western of Canada appear tempting.

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 100 East Rose. 100 Parys Copper, 6s. 6d. 100 West Devon Cons., 5s.
 100 Eberhardt, 11s. 50 Potosi, 10s. 6d. 100 West Crebhor, 6s.
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Notices to Correspondents

COTTON POWDER COMPANY—*Erratum*.—In the notice of the meeting of this company, in last week's Journal, it should have been stated—The present year would show still better results, the company's works having been considerably enlarged would afford ample facilities for meeting (not treating) the increasing demand for tonite.

Received.—"One Interested" (Kimberley)—"Shareholder" (East Botolph)—"A. D." (Glasgow)—"T. O." (Turin)—"Nemo"—"Shareholder" (Dorchester)—"W. R. M."—"J. H."—"T.M." (Dublin)—"Old Reader" (Bristol)—"Shareholder" (Hoover Hill).

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, MARCH 3, 1883.

CERTIFICATED MANAGERS OF MINES.

A good many mining engineers just now are greatly exercised with respect to the judgment given recently by Lord COLERIDGE with respect to the interpretation of the 26th section of the Mines Regulation Act of 1872, special reference to which was made by the President of the Midland Institute of Mining Engineers, at the meeting at Leeds on Thursday last. The President suggested that the subject should be brought forward at the next meeting to consider the decision come to by Lord COLERIDGE, which has a most important bearing on the position of a considerable number of mining engineers in all parts of the kingdom. The appeal of PLANT v. the CHEADLE VALLEY COAL AND IRON COMPANY, and the judgment given in connection with it, bears out the views we have several times expressed with respect to the section of the Act of Parliament relating to the appointment of the managers of mines. On the occasion of an explosion which took place in the West Riding of Yorkshire, resulting in the deaths of a considerable number of miners, it was proved before the coroner's enquiry that the certificated manager was several miles away from the scene of the catastrophe when it occurred, seldom visited the place, gave instructions as to the working operations to be carried on from the reports received at his house or office from the underviewer, and also held certificates as manager of several other mines. This system has become pretty general, and it has been held by the parties interested in it that one engineer can hold any number of certificates, and so become the manager of several mines. This, we have contended, is opposed to the correct reading of the Act of Parliament, and our views have been confirmed by the judgment of Lord COLERIDGE in the decision in the appeal case to which we have alluded. His lordship held that it was the duty of the manager in charge of a mine to be constantly either in the mine itself or on the surface, so that in the event of anything taking place requiring prompt action he would be ready to take the direction. Consequently no manager holding a certificate could absent himself from the mine in his charge, and could, therefore, only hold one certificate. This, of course, is the material point which will affect a good many gentlemen, as it will prevent them from holding a plurality of certificates; but it is evident that the management will be best where an experienced and intelligent mining engineer has only one mine to look after instead of half-a-dozen or more.

This was evidently the intention of the framers of the clause in the Act of 1872, the Act itself in fact having been introduced principally for securing increased safety to the miners. But the 26th section, to our thinking, cannot be fairly interpreted otherwise than it is intended by it that a mining engineer can only hold a certificate as manager of one mine. By the clause it is enacted that "Every mine to which this Act applies shall be under the control and daily supervision of a manager, and the owner or agent of every such mine shall nominate himself or some other person (not being the contractor for getting the mineral in such mine, or a person in the employ of such contractor) to be manager of such mine." This appears plain enough, one would think, and we cannot see how the term "daily supervision" can be construed to mean written supervision, which some of the pluralists hold to be an intelligent reading of the clause. There is to be a manager for every mine to which the Act applies, and not one manager for ever so many mines. Such is the interpretation of Lord COLERIDGE, and as it does not appear it will be appealed against we certainly think it ought to be carried out to the full extent. If it is, no doubt it will affect the emoluments of those gentlemen who have contravened the Act by holding several certificates, but who have by so doing kept a good many mining engineers of experience and ability out of employment. There is no dearth at the present time of able mining engineers, and our new colleges and other educational mining establishments will now considerably increase the number, so that it would be most unfair to allow the monopoly of certificates to be continued longer, seeing that it is opposed to both the letter and the spirit of the Act of Parliament, as it is also opposed to the interests of the mining profession. The working miners, too, would be more satisfied with knowing that there was a manager always on the ground to superintend the working operations than they would be when they knew that they were acting under the superintendence of a deputy taken from their own body, without any scientific knowledge with regard to gases or ventilation.

As we have previously stated, there is evidently no intention to question the legality of the decision come to by Lord COLERIDGE, therefore we consider the law from his point of view should be enforced without much delay, for, as the President of the Midland Institute remarked in calling attention to the subject, that if the decision given was good an Act of Parliament would be required to alter it. But, we believe, were any attempt made to allow of mining engineers holding certificates for more than one mine it would not find a dozen supporters in the House of Commons, whilst it would meet with the strongest possible opposition from the representatives of the working miners throughout the kingdom, and through them from the Trades Association's Parliamentary Committee, which has a considerable amount of influence.

But few of our mineowners are probably aware of the risks they are running in not carrying out the provisions of the Act of 1872, according to the interpretation put upon the 26th section by Lord

COLERIDGE. They should, therefore, be aware that by the section alluded to it is provided that, "If any mine to which this Act applies is worked for more than 14 days without there being such a manager for that mine as is required by this section the owner and agent of such mine shall each be liable to a penalty not exceeding 50*l.*, and to a further penalty not exceeding 10*l.* for every day during which mine is so worked." It will be seen that the penalties for contravening the 26th section of the Act are very high, whilst we may say they can be recovered in the manner directed by the Summary Jurisdiction Act before a Court of Summary Jurisdiction. Should no notice be taken of the decision given by Lord COLERIDGE we have every reason to believe that the question will be brought forward in one of the ordinary courts, so that those mineowners who are affected by the section of the Act alluded to would do well to consider their position.

THE PRODUCTION OF COAL.

MINERS' WORKING AND WAGES.

From returns just received it appears that the quantity of coal raised in 1882 was 156,500,000 tons, being an increase of 2,313,000 tons over the previous year. This would show that the consumption and production at home have nearly balanced each other, seeing that the output in 1881 was 7,217,300 tons more than in the previous year. So far as household consumption is concerned, it is evident that advantage has been taken of every improvement calculated to minimise the quantity used for ordinary purposes, whilst so far as regards the expenditure of fuel for the smelting of metallic ores the lowest point has not yet been reached, but greater efforts will now be made in that direction by the attempts being made by the miners to advance the price of coal. From the same cause also we may expect that more favourable systems of working coal will be adopted, for it is admitted that notwithstanding considerable improvements in the general system of coal mining, and the utilising of slack and dust for coke-making and other purposes, yet a good deal of the material is wasted by bad working and carelessness. There does not appear any reason why by the various modes of working coal there should be a loss of from 10 to 15 per cent., as is the case, for pillars are left standing that should be carried away, and extensive barriers are left against the influx of water owing to the want of reliable plans by which the exact boundaries could be determined. But we have the fact of a marked diminution in the increase during last year, and it is by no means improbable that this will continue to be the case for some years to come until the output becomes stationary for a time, to be followed by a gradual decrease in the drain upon our reservoirs of fuel.

The miners are now doing all they can to bring this about earlier than would otherwise be the case, and they will, of course, be the sufferers in the long run, for they are not guided by the light of past experience. They complain that there is an excess of production over consumption, and that the latter must be diminished to a marked extent for their benefit. No doubt there are now more coal mines than are actually required to meet our home and foreign requirements, but for this state of things the miners have only themselves to blame. A few years ago, when the productive power of the country was not equal to the demand, they decreased the output whilst enjoying exceptionally high wages, and so caused the opening out of new coal mines in nearly all parts of the kingdom; and they now complain of the result brought about by their own conduct. Indeed, they are now attempting to initiate the same policy which has been so injurious to themselves as well as their employers. That this has been the case we need only draw attention to the quantity of coal raised per man during the last 10 or 12 years to bear out the remarks we have made. The following figures show the quantity of coal raised yearly, the number of persons employed in and about the mines under the Coal Mines Act, the output per man, and the price of the best coal over the ships' side in the Thames.

Year	Tons raised.	No. of employed.	Tons p. man.	Price p. ton.
1870	107,427,557	345,446	314	17s. 5d.
1871	117,352,000	370,881	316	18 2
1872	123,497,300	418,088	291	23 10
1873	127,016,700	512,199	248	31 3
1874	125,067,900	538,829	232	24 8
1875	131,867,100	535,845	246	22 9
1876	133,344,800	514,532	259	20 2
1877	134,610,700	494,391	272	18 5
1878	132,610,900	475,329	279	16 10
1879	133,808,000	476,810	281	16 11
1880	146,969,000	484,933	303	14 11
1881	151,184,300	495,477	311	15 3
1882	156,500,000	501,000	312	15 6*

* Estimated.

From the above will be seen the years of highest prices and the rate of advance or decline. In 1870, when the price of coal was low and the miners' wages were in a similar state, there was towards the close of it a movement of a favourable character, and this increased to some extent in the following year. In 1872 wages and prices went up together, and it will be seen that the result was a considerable decrease in the output per man from 316 tons in 1871 to 291 tons. Notwithstanding the fact that owing to the high wages paid to miners many men from other businesses went into the mines, the number having increased from 418,088 in 1872 to 512,199 in 1873, yet with this marked addition to the number of men employed in and about the mines the individual output decreased from 291 tons to 248 tons. Now, had the men in 1873 raised as much per man as was the case in 1872 they would have got 4,046,773 tons more than they did. But the high wages led the men to work only four or five days a week, and so long as the output was kept down so long were high wages and profits maintained. But a day of reckoning was fast approaching, induced by the high rates charged for coal and the limitation of the output on the part of the miners. Companies were formed and some millions of capital were invested for the purpose of purchasing old collieries and opening out new ones, so that in the course of a very few years there was more coal produced than was required. In fact, the productive power of the country has increased too rapidly, owing to the peculiar state of things which prevailed in 1872 and 1873, and for this no persons are more to blame than the miners themselves, for it will be seen by a reference to the figures we have given that they worked more or less according to the wages they received, and these were in a great measure regulated by the price of coal itself. As an illustration of this, if the year 1873 is taken it will be found 512,199 persons raised 127,016,700 tons of coal, whilst in 1882 it only required 501,000 workmen to get 156,500,000 tons. This shows plainly the effect that wages has upon the individual production, and it need scarcely be said that if the miners had worked anything like as hard in 1873 as they did in 1882, they would now be in a very different position to what they are, for there would be a considerably less number of coal mines than there are, and as the productive power would not be in excess of the consumption, the profits and wages of mineowners and miners would be very different indeed to what they are, and there would be no necessity for attempting to reduce the output of coal by artificial means.

THE NEW STEEL RAIL WORKS AT WORKINGTON—THE GREAT STEEL RAIL ORDER.—One of the largest orders for steel rails that has been placed for a long time is that just given out by the Government of New South Wales for 72,000 tons, and which, it is said, has been allotted to Messrs. Cammell and Co. (Limited), of the Cyclops Works, Sheffield. Some short time since the company purchased the steelworks at Dronfield, in Derbyshire, from Messrs. Wilson and Cammell, and determined to remove them to Moss Bay, near to Workington, and it is stated that the new works will be opened by the commencement of the South Wales order. But this is scarcely likely to be the case, seeing that the new works are far from being completed, whilst the company have an establishment at Penistone, near Barnsley, which produce more than 2000 tons of steel rails weekly. With respect to the new works at Moss Bay, which will be amongst the most complete of the kind, the weather has retarded operations so far as the buildings are concerned, but there are two fine chimney stacks completed, and the boiler beds are all but finished. Men have been engaged on the foundations for the engines,

and one of the large single-storied workshops is nearly roofed in. The foundations of the other shops or sheds have also been completed, so that the building will not take so long running up; but, as it is, there is a vast quantity of bricks and similar material lying about, covering a considerable space of ground, showing that the buildings will be on a most extensive scale. The engines, boilers, and machinery are on the ground ready for being fixed, and as there are a large number of hands employed, with the existing fine weather, the progress towards completion is now expected to be rapid. Considerable headway has been made on the line of railway from the shore to the works, by which the latter will have direct communication with the Lonsdale Docks at Workington. The dock, it may be said, is now unequal to the accommodation required, for only last week there was an addition to the ordinary craft of five steamers, varying from 1000 tons to 1500 tons each, besides smaller craft, which kept the men and cranes fully going to a late hour on the Sunday night. At Maryport a fine dock, capable of accommodating the largest steamers, is expected to be finished by September, and it is anticipated that advantage will be taken of it by Messrs. Cammell for the shipment of their rails. The new works will add nearly 2000 to the present population of the locality.

THE BESSEMER AND OPEN HEARTH STEEL TRADE IN 1882.

We are favoured with advance sheets of the annual statistical reports of the Bessemer Steel Trade in 1882, and of the production of Open Hearth Steel in the same year, prepared under the auspices of the British Iron Trade Association, by Mr. J. S. JEANS, the secretary. The total production of Bessemer steel ingots in the United Kingdom in 1882 was 1,673,649 tons, which is an increase of 231,930 tons on the production of the previous year. This increase is, however, 165,407 tons less than that of 1881 on 1880, the latter having been the greatest advance made in any one year in the history of the trade. In 1882 the total production of Bessemer steel rails in the United Kingdom was 1,235,785 tons, an increase of 212,045 tons on the production of 1881, against an advance on the latter year of 283,830 tons on the production of 1880. Of the total quantity of ingots produced in 1882, 74 per cent. were manufactured into rails, against 70 per cent. in each of the two years 1881 and 1880. In 1882, therefore, the proportion of rails to ingots was 4 per cent. more than in either of the two preceding years. Appended are statistics of the quantities of Bessemer steel ingots produced in each district of the United Kingdom in each of the last two years, with amount of increase:—

District.	Ingots, 1881.	Ingots, 1882.	Increase.
South Wales...Tons	384,656	483,086	98,430
Sheffield	392,812	420,000	27,188
Cleveland	264,986	326,924	61,938
Lancashire	227,465	239,983	12,518
West Cumberland	162,775	191,326	28,551
Staffordshire	9,025	12,330	3,305

Total 1,441,719 1,673,649 231,930

The greatest increase of production appears in the South Wales district, where it amounts to 98,430, or 25 per cent. In the preceding year South Wales produced 76,423 tons of ingots more than in 1880, the aggregate increase of production within two years having been 174,853 tons. During 1882, the Tredegar Company, in South Wales, have commenced to manufacture Bessemer steel with two converters, which are calculated for an aggregate annual output of about 70,000 tons. Cleveland has followed South Wales with an increase of 61,938 tons on the output of 1881. In the latter year the output was 120,986 tons larger than in 1880. Within two years, therefore, the output of Bessemer steel in this district has been increased by 182,924 tons. In 1880 Cleveland and South Wales unitedly produced 452,233 tons of ingots, or 43 per cent. of the whole output of the country. In 1882 their production was 810,010 tons, or 49 per cent. of the whole. The production of Bessemer steel rails in the United Kingdom for each of the last two years, with amount of increase in each district, is appended:—

District.	Steel Rails, 1881.	Steel Rails, 1882.	Increase.
South Wales...Tons	305,043	367,944	62,901
Sheffield	245,469	310,000	64,531
Cleveland	216,004	265,842	49,838
Lancashire	135,543	140,708	5,165
West Cumberland	121,093	150,693	29,600
Staffordshire	588	598	10

Total 1,023,740 1,235,785 212,045

The number of Bessemer steelworks in operation in the United Kingdom during 1882 was the same as in the preceding year—23, one new works having commenced to manufacture steel for the first time in that year, while another company discontinued the manufacture altogether. The number of converters in work during the year was 80, or two less than in 1881, while 24 were inoperative—three less than in 1881—and 10—or four less than in 1881—were in course of construction. Particulars are appended:—

Statement showing the position of the Bessemer steelworks and converters in the United Kingdom on Dec. 31, 1882:—

District and Name of Works.	Name of Firm.	At work.	Idle.	Construct.
Sheffield—				
Atlas	John Brown and Co.	2	2	0
Stockbridge	Samuel Fox and Co.	4	0	0
Phoenix	Steel, Tozer, and Hampton	4	0	0
Cyclops				
Grimesthorpe	C. Cammell and Co.	8	0	0
Penistone				
Dronfield	Wilson, Cammell, and Co.	4	0	0
Sheffield	Brown, Bayley, and Dixon	2	2	0
Bessemer	H. Bessemer and Co.	2	2	0
Total		26	6	0

South Wales—				
Dowlais	Dowlais Iron Company	4	2	0
Rhymney	Rhymney Iron Company	5	0	0
Blaenavon	Blaenavon Iron Company	2	0	0
Ebbw Vale	Ebbw Vale Iron and Steel Co.	6	0	0
Tredegar	Tredegar Iron Company	2	0	0
Cyfarthfa	Crawshaw Brothers	0	0	2
Total		19	2	2

North of England—				
Cleveland	Bolckow, Vaughan, and Co.	8	0	2
Darlington	Darlington Iron Company	2	0	0
Tudhoe	Weardale Iron Company	2	2	0
Erimus	C. E. Muller	0	2	0
Cleveland Works	Sutherland and Company	0	0	2
North-Eastern	North-Eastern Steel Company	0	0	4
Total		12	4	8

West Cumberland—				
Moss Bay	Moss Bay Iron Company	3	0	0
West Cumberland	West Cumberland Iron Co.	4	0	0
Total		7	0	0

Lancashire—				
Crews	L. and N. W. Railway Co.	2	2	0
Barrow	Barrow Hematite Steel Co.	8	2	0
Openshaw	M. S. and L. Railway Co.	2	0	0
Carnforth	Carnforth Hematite Steel Co.	0	2	0
Gorton	Standard Iron and Steel Co.	0	2	0
Bolton	Bolton Iron Company	2	2	0
Total		14	10	0

Staffordshire—				
Monway	Patent Shaft and Axletree Co.	2	2	0
Total		2	2	0

There has been a considerable improvement in the average pro-

effectiveness of the converters at work in 1882 as compared with any preceding year—thus the average annual yield per converter in 1879 was 12,641 tons; in 1880 it increased to 13,125 tons; in 1881 it further increased to 17,582 tons; and in 1882 to 20,920 tons. But while the converters in work have averaged 3338 tons per converter more than in 1881, there is a large amount of variation in the yields obtained in the districts, the averages of which have been—

District.	Con- verters.	Production of Ingots. Tons.	Av. per Converter. Tons.
South Wales	19	483,086	25,425.58
Sheffield	26	420,000	16,153.84
Cleveland	12	326,924	27,243.66
Lancashire	14	239,983	17,141.64
West Cumberland	7	191,326	27,332.28
Staffordshire	2	12,330	6,165.00

The best result obtained at individual works was 78,202 tons with two converters—an average of 39,101 tons per converter; while at another works the average yield per converter amounted to 31,178 tons. The former is believed to be the best record that has yet been made in the United Kingdom in Bessemer practice. With such excellent practice throughout the country the work done last year by 80 converters might be accomplished by 46.

The total quantity of Bessemer steel plates manufactured in the United Kingdom during 1882 was 33,500 tons, against 21,989 tons in 1881, and 21,500 tons in 1880. Of the 23 works engaged in producing steel of this description, nine turned out in 1882 quantities of plates varying from 14 to over 10,000 tons. As in the preceding year, a large trade was done in blooms during 1882, chiefly on American account. The total quantity produced was over 130,000 tons.

As to the production of open hearth steel in 1882, returns obtained from the steelworks, and verified by Dr. Siemens, show the production last year to have been 436,000 tons, against a production of 338,000 tons in the preceding year. This figure is an increase of 98,000 tons, or 29 per cent. on the production of 1881, which in its turn was an increase of 87,000 tons, or 34.6 per cent. on the production of 1880. Within the last two years, therefore, the production of open hearth steel in the United Kingdom has increased by 185,000 tons, a quantity which is 10,000 tons in excess of the whole production of the country in 1879. The production of open hearth steel in each district of the United Kingdom during each of the last two years, with amount of increase in the latter year, was:—

District.	1881. Tons.	1882. Tons.	Increase or Decrease in 1882.
Scotland.....	102,000	213,000	+ 111,000
South Wales	159,500	129,500	- 30,000
Sheffield	34,000	42,000	+ 8,000
North-West Coast...	24,000	17,000	- 7,000
North-East Coast...	12,200	6,000	- 6,200
Other Districts	6,300	28,500	+ 22,200
Totals.....	338,000	436,000	+ 98,000

It will be noted that during 1882 Scotland has more than doubled the production of open hearth steel. This is due mainly to the demand on the spot for open hearth steel plates, of which more than 150,000 tons were produced during the year.

The total quantity of both Bessemer and open hearth steel produced in the United Kingdom in 1882 was 2,109,649 tons. In 1879 the corresponding production was 1,009,511 tons. Within four years, therefore, the production of these two descriptions of steel has more than doubled in Great Britain. The number of firms actually engaged in the production of open hearth steel in the United Kingdom during each of the last three years has been 20 firms, 27 firms, and 35 firms respectively. The number of open hearth furnaces erected in the United Kingdom at the end of each of the last three years has been 120 furnaces, 149 furnaces, and 163 furnaces respectively. The average annual production of the open hearth furnaces actually at work in the United Kingdom during each of the last three years has been 2540 tons, 2925 tons, and 3114 tons.

ECONOMIC GENERATION OF HEAT AND STEAM.

Reference was made in the *Mining Journal* of Feb. 17 to the improved boiler flues, furnaces, and funnels invented by Messrs. LIVER and WERY, and as their merits are very fully discussed in the report of Mr. D. K. Clark, C.E., in connection with the Smoke Abatement Exhibition, it may be further noticed that not only was the evaporation extremely high but the steam was proved to be remarkably dry, which is the only true test of evaporation, as often when to all appearances the evaporation seems good, it is found that the water is being forced into the engine, &c., and, therefore, the result is fallacious. It appears that the boiler at Messrs. Clay, Sons, and Taylor's was short in proportion to its diameter, and consequently not so economical in point of heat, and that it was reset upon this system, and began work on Sept. 1, 1879, two years before the tests were made, and that the same set of fire-bars which were used for the tests had been regularly used for nine months before they began, during all which time anthracite had been burned; also that the boiler during the whole time was doing its ordinary daily work, and was not exceptionally treated in any way—except on one occasion, when more extraordinary results than usual were obtained by careful stoking—and lastly, that the steam generated was specially tested by Mr. D. K. Clark, and found to be remarkably dry. These facts suffice to prove the invention to be of practical commercial value.

This system, says Mr. Clark, though not professedly a smoke preventer, possesses nevertheless a considerable degree of efficiency for preventing smoke. It is stated by Messrs. Tate and Sons, of Silver-town, that, according to their experience, the evaporative efficiency of their boilers, burning 6 cwt. of coal per hour per boiler, has been increased from 6.39 lbs. of water, supplied at 66° Fahr. per pound of coal to 7.40 lbs. by the substitution of Mr. Liver's system of setting boilers. With regard to Wery's apparatus, known as the atmospheric chimney, it is mentioned that it is designed to accelerate the combination of the atmospheric oxygen and unconsumed gases which rise from the fire at a high temperature. For this object a winding or rotating movement is impressed upon the elements in the chimney, which it appears is extended to the body of gaseous elements in the furnace; so that in winding the gases spirally, instead of ascending direct, more time is provided for mixing at a high temperature, and the mixture is better effected. This function is most simply exemplified in the case of vertical boilers having cylindrical iron chimneys. The tests were made on a vertical boiler having a fire-grate of five square feet in area. The lower part of the chimney was encased in a jacket for a height equal to three diameters. The external air was admitted into the jacket at the base, and in ascending it entered the chimney through two spiral slits 1.16 in. wide at the base, gradually enlarging to $\frac{1}{2}$ in. in width at the top of the jacket, each slit making one revolution. The air entering through the slits mingled with and communicated a winding movement to the ascending hot gases, which appeared to be extended downwards by inducement to the body of gases in the fire-box, wherein when the door was opened the circling movement could be observed. It appears from the results of the tests, which were made repeatedly, that the evaporative efficiency of the same boiler was increased by more than one-half by the application of this contrivance. From the results of independent trials made by M. Gibault, at Paris, in April, 1880, it appears that while steam was got up in a portable boiler fitted with the Wery chimney in one hour 18 minutes, with the ordinary chimney the time required to get up steam was two hours two minutes.

In his remarks upon the fixed appliances, Mr. Clark says that in Liver's system of setting boilers, it is not at first sight obvious that, by the employment of expanding flues of a special shape and construction a materially better action of the furnace and boilers should be effected. It has, nevertheless, been ascertained by many instances of resetting on Mr. Liver's system, that the draught has been improved and the evaporative efficiency augmented. The tabulated results of the tests of Welsh coal show that, in the boiler at the works of Messrs. Clay, Sons, and Taylor, which is set and fitted on Mr. Liver's principle, very high evaporative efficiencies of fuel have been attained. The large capacity of the flues, it may be added,

affords exceptional facilities for inspection of the boiler. With regard to the merits of Wery's system of atmospheric chimney, Mr. Clark states that the unexpected advantage gained by its employment on the vertical boiler exhibited is certainly a study for the mechanical philosopher.

THE GOLD FIELDS OF GUAYANA.

THE CENTRAL CALLAO GOLD FIELDS.

We have already drawn attention to these important mines, situate in the heart of the Caratal Gold Field of Guayana. The properties have hitherto been held (like El Callao) by a group of Guayanese merchants, and one of the mines (Los Frailes) has always been regarded as one of the most important in the district. In order to develop the Central Callao properties more rapidly, it has been decided to transfer them to an English company, but so high an opinion have the proprietors formed of their value, that they have only consented to the transfer on condition of receiving the whole of the purchase-money in shares of the new company. The properties are held under four concessions, having about 95 years to run, and comprise together about 700 acres. They are known as the Los Frailes Mine, which covers an area of 409 acres, and is adjoined by El Callao and Callao Bis on the north; the Union and El Tigre Mines on the east, the Sosa-y-Mendez Mine on the south, and the Panama Mine on the west, being, in fact, in the centre of the Callao district. The noted Callao lode, which runs north and south, traverses the property for about $\frac{1}{4}$ mile in length. Very strong outcrops of this important lode have been opened upon at two or three places, showing an excellent appearance, some of the quartz being rich in visible gold. This lode will now be developed in depth.

THE LOS FRAILES LODE.—To this vein, which runs east and west, and is considered to be the largest and one of the richest in the Caratal district, the operations have hitherto been principally confined. A main engine-shaft has been sunk about 17 fathoms from surface through a very fine lode. At the bottom of the engine-shaft the vein is 10 ft. wide, producing about 30 tons of quartz per fathom, yielding 2 ozs. of gold per ton, or 60 ozs., value 230*l.* per fathom. About 50 ft. to the east of the above is the old shaft, which has been sunk to the same depth. The lode in the bottom is 8 ft. wide, yielding $\frac{1}{2}$ ozs. of gold per ton, or 43 ozs., value 184*l.* per fathom. Between the two shafts a north and south lode, supposed to be the Callao, crosses the Los Frailes vein almost at right angles. This lode is about 3 ft. wide, and produces 2 ozs. of gold per ton. The Los Frailes vein has been driven upon for a distance of about 300 ft. through a lode varying in thickness from 6 to 25 ft., and averaging throughout 2 ozs. of gold per ton. At the western fore-bast of the 17 fathom level the lode is 6 ft. wide, and yields 2 ozs. of gold per ton. The ground to the westward in front of this level rapidly rises to a height of 200 ft., consequently as the level is driven forward a very large amount of ore ground will be laid open between it and the surface. We understand it is the intention of the company to proceed at once to sink the shafts 10 fathoms deeper, and drive a new 27 fathom level east and west on the Los Frailes veins, also to drive a level at the same depth on the north and south vein. These operations will open out in a few months a mine capable of readily yielding quartz sufficient to supply a mill of 100 stamps, and in a further short period sufficient quartz for a second mill of equal dimensions.

ENGINE, MACHINERY, REDUCTION WORKS, &c.—The mine is supplied with powerful winding and pumping engines at each shaft. The mill erected comprises only 20 stamps, but this number it is proposed to considerably increase. The barracks for workmen and various buildings are very extensive and compact, and are reckoned among the best in the district. The amount expended in the erection of the machinery and buildings is stated to exceed 85,000*l.* The mine and reduction works have been well located in the centre of the Los Frailes property, which extends about 1500 ft. west and 2000 ft. east of the engine-shaft, on the Los Frailes lode, and about 2000 ft. north and 6000 ft. south of the engine-shaft, on the north and south lode. The works have hitherto been laid out in such a manner that they can be readily increased, so as to develop the mine very extensively, and it is evident from the discoveries already made that there will be an abundance of ore for the mills during the term of the concession.

THE ATALAYA GOLD MINE.—This property comprises about 70 acres, and nearly adjoins the Chile Mining Company's property on the south-west. It is well situate for easy development, as the ground rises rapidly on the eastern side, where adit levels can be driven in to intersect the lodes, at depths varying from 200 to 300 ft. from surface. Outcrops of the gold veins, of which there are several in this property, have been extensively worked on the surface by the old miners; and, as these primitive operations were carried on without the aid of machinery, the quartz being crushed by hand, and the gold washed out in the batea, it is evident that the veins are very productive, and there is ample ground here—about $\frac{1}{4}$ mile square—for opening out an extensive mine. There is an abundance of wood on the property available for mining purposes and fuel.

THE POTRERO PROPERTY is about 70 acres in extent, and situate about $\frac{1}{4}$ mile due east of the Callao Mine. It contains a number of large quartz lodes, but very little gold has as yet been discovered on this grant. The surface is covered with an abundance of good timber.

THE BONIFACIO PROPERTY comprises about 140 acres, and is situated on the north side of the Yurari River, nearly opposite the Callao and Nacupai Mines. The grant is very heavily timbered, and in this respect will prove of considerable value to the company, but the gold veins have not yet been explored.

CALLAO BIS.—Advises just received state that the lode recently intersected in this property has been driven upon for a distance of 40 ft., and averages 4 ft. in thickness. Its bearing is north-east and south-west, from which it would appear that it is the Nacupai lode, which, in the Nacupai mine, produced in the mill about $\frac{3}{4}$ ozs. of gold per ton. Should this prove correct it will greatly enhance the value of the Callao Bis property, for the Nacupai vein is in point of size and richness quite equal to El Callao, whilst by continuing the sinking of the engine-shaft, the latter vein will certainly be met with at no very great depth from the present interesting point of operations. The Callao Bis Company are to be congratulated on this new discovery.

The above form together the group of properties which are now being transferred to the Central Callao Company, and having regard to their great extent and value, to the important discoveries made in the Los Frailes Mine, and to the buildings and machinery already erected, there can be little doubt but what the new company will quickly take a leading position among the established mines in the Guayana gold fields. The London offices of the company are at 44, Finsbury Pavement, E.C.

THE RIO TINTO MINES, AND THE MADRID EXHIBITION.

The Rio Tinto Mines stand forth so prominently as an instance of Spanish mineral wealth, and of British mining enterprise, that it is but reasonable to expect that they would be fairly represented at the forthcoming Madrid Exhibition, and it is gratifying to find that the directors of the Rio Tinto Company have taken the necessary steps to ensure the representation being graphic and interesting. Mr. C. N. Thwaite, the architectural and engineering modeller of Commercial-road, Peckham, has just completed a large model of the town and mines of Rio Tinto, accurately wrought to scale, and coloured to nature. The model covers a space of 9 ft. by 6 ft., and would average about 3 ft. thick, so that it is amply large enough to permit the character and extent of the workings being readily understood and appreciated. Although a copper mine, the enormous thickness and continuity of the deposit renders it more economic to work it as an immense quarry with five or six benches, upon each of which regular railways are laid for the removal of the ore. The superincumbent mountain is being entirely removed by seven other benches, on five of which locomotive traction is provided, whilst on the two upper ones, which are at too great an elevation for the convenient use of locomotives, mules only are employed. The whole of the benches, whether in the ore in the over-burden, forming one continued series of steps, the 12,000 workmen employed pursue

their labours regularly and uninterruptedly, thus turning out the enormous quantities of mineral periodically reported in the *Mining Journal*, and extending the available mass of mineral, which really appears almost inexhaustible.

Standing behind the town of Rio Tinto, which occupies one corner of the model one sees, the several streets, the casa grande, the plaza, and the various other buildings, all of which Mr. Thwaite has modelled so accurately that it would be difficult to suggest an alteration. Beyond the town is the large gulf representing the mine, on the right hand or eastern side of which are the various buildings required for the treatment of the ore, the building which contains the machinery for generating the electricity, which supplies seven arc lamps by which the works are illuminated at night, that which contains the carriage provided for the King upon the occasion of his visit to the mines, and so on. Even the railways, which were then fixed on the edge of one of the benches that the royal party might safely occupy an otherwise dangerous position to obtain the best general view of the mine, is carefully shown, and the locomotives, water conduit, electric lamp poles, and other minute details which a less experienced modeller would scarcely have noticed, are accurately represented. Looking towards the east from the back of the mountains, the summit of which is about 300 ft. perpendicular above the tunnel level, an excellent view is also obtained, the bridge connecting the town with the works having all the solid appearance of a finished piece of ordinary engineering. The model altogether reflects the highest credit upon Mr. Thwaite, and if brought back to England after the Exhibition, will be invaluable for giving the shareholders a correct idea of their really marvellous property.

ASBESTOS, AND ITS INDUSTRIAL APPLICATIONS.

The manufactures of the United Asbestos Company have several times been prominently referred to in the *Mining Journal*, and as they have now issued a new illustrated catalogue an opportunity is afforded of again noticing some of the more important articles. As the company has now established extensive mills near London they have greatly increased their facilities for manufacturing economically, since they have not only the exclusive use of water-power, but have adopted novel and specially designed machinery which enables them to manufacture the best quality at the lowest possible price. Asbestos has of late become an important article of commerce, and its uses are daily extending. This is owing to the fact that the long, tough, fibrous nature of the mineral they employ—Italian asbestos—is capable of being worked into almost any required form or state by the aid of improved machinery. The extraordinary results obtained by the use of the company's asbestos fire-proof paint was noticed in the *Journal* some six months since, when it was submitted to a series of the most severe tests that could be devised, and the company are now able to announce that the success of this branch of their business has far exceeded their most sanguine anticipations, and they are now receiving enquiries and orders for their paints from all parts of the world. This success can only be attributed to the thoroughly genuine character of the paint, as testified by the numerous public demonstrations they have made of its great fire-resisting qualities before the Lord Mayor of London, the Metropolitan Board of Works, the Lord Provost of Glasgow, the mayors, corporations, and fire brigades of the various provincial cities.

But probably the greatest triumph which the company has achieved in the industrial application of asbestos is the new patent woven steam packing which they have introduced, after experiments extending over a considerable period. For a considerable time Italian asbestos has been recognised as possessing natural qualities far superior to any other material for making a high class, durable, and really economical packing for glands. Owing, however, to the difficulties hitherto experienced in working this mineral fibre into a clean, pure thread or yarn, no packing that has as yet been before the public has proved quite satisfactory. These difficulties have now been altogether removed, and, after a long series of experiments and considerable expenditure of capital, special machinery has been designed and patented by the company, by which they are enabled to offer, at a very moderate price, a packing which can be recommended with the fullest confidence, and which is already being received with great favour by large users of steam-power. The principal advantages claimed for this packing are, that it is made from the best selected strong Italian asbestos fibre; that it is guaranteed to be thoroughly clean, and absolutely free from soapstone or other foreign matter; that it is firm, but sufficiently elastic to render it specially suitable for locomotives and all other engines worked at high speed and high pressure; that there is not the slightest reason to apprehend injury to the rods by its use; on the contrary, it will keep them bright and clean so long as it remains in the glands; that its remarkable durability renders it the most economical packing in existence. Packing manufactured from the same material, but of an inferior make, has been in constant wear in the French navy for 18 months without the gland having to be disturbed, and similar instances of its lasting qualities frequently come to notice; that when used for marine engines it will not char, and the dangerous necessity for stopping at sea to pack the glands is obviated by its use; and that it is to a great extent self-lubricating, and works well with ordinary mineral cylinder oil. As this packing is composed of fine spun Italian asbestos thread it can readily be supplied of any required size from $\frac{1}{8}$ in. to $2\frac{1}{2}$ in. diameter, and in every case in which it has been used it seems to have given entire satisfaction.

THE LORD ADVOCATE AND MINERS' GRIEVANCES.—The secretary of the Fife and Clackmannan Miners' Association has received from the Lord Advocate a letter, in which his lordship deals with the question of weighing coal, which has been a source of dispute between coalmasters and coalminers in Scotland for a long time. He gives it as his opinion that "It is not illegal for the employers to pay the men at a certain rate on quantities of 22*l.* and 24 cwt., these quantities being multiples or parts of imperial measures. He also considers that deductions for foreign material cannot be fixed by the employees alone, but by agreement." Much importance will be attached to the views thus given by his lordship.

COAL AGENTS AND CONSUMERS.—REMARKABLE COUNTY COURT CASE.—At the Bloomsbury County Court, on Feb. 23, G. J. Evenson, of Birmingham, brought an action against F. A. New, of the Coal Exchange, London, for the recovery of 8*l.* 17*s.*, money paid by the plaintiff, on Jan. 30, 1877, for a truck of coals six years ago last November. The plaintiff, through his late London agent, Mr. Walter Morre, agreed for the defendant to load one of his (plaintiff's) trucks with Talk-o-the-Hill coal, and consign to him at Herne Hill, and for which he paid defendant at the date above mentioned, and which he now asserted his customer had never received; and in support of his case Mr. Morre was called, who deposed that in November, 1876, he received Mr. Evenson's instructions to order a truck of coals, to be loaded by Mr. New, at 9*s.* 9*d.* per ton at the pit, which was 1*s.* 3*d.* per ton less than he (the plaintiff) could purchase it at the colliery, and that the defendant had carried out these instructions, the defendant also paying the railway rate, as the plaintiff had no account with the North Staffordshire Railway Company. The Judge ruled that the defendant had fulfilled his contract, and gave a verdict accordingly, with costs.

THE TAXATION OF COLLIERY ROYALTIES.—Representations having been made to several Members of Parliament with regard to the proposed direct taxation of colliery royalties replies have been received. Mr. Stansfeld, M.P., says, "Our whole system of rating is based upon occupancy. To rate the landlord, therefore, as well as the tenant, would be a measure of a revolutionary character. The best relief to the taxes will be found in the assignment of certain local taxes now applied to imperial purposes to local administration for purposes of a local character." Sir Henry James (the Attorney-General) thinks it inadvisable to express an opinion upon a measure which may have to be dealt with by the Government. Sir Andrew Fairbairn, M.P., states that he is not fully informed as to why colliery royalties are taxed, but promises due consideration to any facts submitted. Mr. Barran, M.P., observes that he is not fully acquainted with the subject, but will turn his attention to it. Mr. Slagg, M.P.,

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Feb. 27	Cwmystwyth	30	£ 3 3 6	J. F. Kimmel.
28	Frongoch	150	3 5 0	Villiers Spelter Co.
— ditto	50	2 7 6	Vivian and Sons.

FOR SALE, a 30 H.P. PORTABLE STEAM ENGINE has link-motion reversing gear, with winding and pumping gear complete.
A 16 H.P. PORTABLE WINDING and PUMPING ENGINE:
 Also a 6 H.P. PORTABLE HOISTING ENGINE.
 To be seen at—
BARROWS AND STEWART'S WORKS, BANBURY, OXON.

WATSON BROTHERS' MINING CIRCULAR

WATSON BROTHERS,
MINEOWNERS STOCK AND SHARE DEALERS &c
1, ST MICHAEL'S ALLEY, CORNHILL, LONDON.

The unprecedented and almost continuous storms and floods during the past three or four months have not only left their mark on the land but on mines also, many of them having been put to extra expenses in draining, as well as for damages to machinery, &c. Costs, therefore, are heavier than usual, and in some cases returns have been delayed. And now we hear of a scarcity of coals in some districts, and it would become a serious thing to have some mines flooded again owing to their not getting a sufficient supply of this necessary commodity.

At Carnarvon Copper the launders to the water-wheel were blown down during a gale some time ago, and just at a time the ore was wanted at surface for the sampling it was under water, consequently no ore has been sold since November; 30 tons of rich ore, however, are now at Liverpool, and 20 more in course of preparation. The damage has been all repaired, and the agent writes this week of an improvement in the 80, and a good point to come off at Golden Venture. The delay in sampling, however, necessitated the payment in cash of several months' costs without any return, and the directors have thought it desirable to issue the 3000 reserved shares, which are to be allotted *pro rata* to present holders at 10s. per share, 12. paid. Everything has been paid up in cash monthly, so that no liabilities whatever have been incurred, and the directors object to borrowing money. The ores are very rich, several parcels having brought close upon 10l. per ton, but the returns have not reached the quantities which the agent led the shareholders to expect at the meeting last July. Worked entirely by water-power the costs are very moderate, compared with other mines, and 20 tons of ore a month would pay them; this month the agent hopes to have 20 tons, and we have been led to expect 50 tons. The mine is said to have returned 100,000l. of ore, and only about 90 fathoms deep now. To work it properly, however, it was necessary to sink a new shaft from surface through particularly hard ground, and this has cost from 12,000l. to 15,000l., all paid for, and there ought not to be any difficulty, looking at the prospects of the mine, to issue the unallotted shares.

The lode at New Caradon (No. 4), going towards Hallet's cross-course, has improved, and is producing more copper ore.

A telegram was received at the office of the company on Wednesday afternoon, stating that the bottom of the shaft at Langford had been reached, and when cleared of stuff we shall hear what the copper lode is like. And here it may be interesting to refer back, and look how matters stood when the present company took the mine in hand. The shaft, we were told, had been sunk on a fine copper lode, to intersect the Wells silver lode, which had yielded enormous riches in this and other mines in the district. When down to the 50, and so near the junction that one man, as the story goes, found some strings of silver at the deepest point, the engine was overpowered by water, and the mine flooded. Thus it remained for nearly 30 years, the idea being that no one could drain it owing to the extraordinary quantity of water; in fact, Capt. Goldworthy was told plainly in the district he could not drain it, but he said he would, and has done so, by much ingenuity and by some of the largest pumps we should think ever put down in Cornwall, and by these the water is kept easily. The deepest point of the shaft was proved to be 10 fms. 3 ft. below the 40. At present the bottom is full of timber and rubbish, but in a few days we hope to have a report upon the lode, and the result is awaited with much interest. All those who knew the mine years ago are very sanguine as to the result, and the levels above the 40, as cleared and explored by Capt. Goldworthy, show that large quantities of silver and other ores were obtained from them, and they lead him on to "great expectations."

We wish we could give a more encouraging reply to our correspondent, but there is just now an extraordinary absence of business, and a disinclination on the part of shareholders to come forward and support even good properties requiring a little more money. In Cost-book mines calls can be made. In Limited companies there is always difficulty in persuading people to subscribe even at a discount; thus many properties are wound up and sacrificed just when they appear to be on the eve of success. As stated in the *Mining Journal* last week, one or two good discoveries are wanted to enliven the market, and we hope and believe Langford will soon show good, if not great results. Low-priced shares, generally, are being picked up, some at mere nominal prices. In the Caradon district there are West Caradon, New West Caradon, the New Caradon, and West Gonomena—all with good points to come off, and they are all low in price just now. Of the foreign mines named we are not qualified to give an opinion.

At the adjourned meeting of Parys, held on Friday, the resolution authorising the issue of the unallotted shares (7667) was confirmed, and the necessary 3000 shares were subscribed for.

From Mr. JOHN B. REYNOLDS.—The Dolcoath question is still the question of the hour; interest in it, however, lessens, and will lessen. So far from other lords following the example so unfortunately set by Mr. Basset, it is now certain that they will adopt a directly opposite policy. It is expected that in order to avoid legislation, which would be unquestionably detrimental to their interests, they will volunteer concessions, and do all they can to encourage capitalists to develop their mines. It is high time in their own interest they did so, but if the Cornish people delay concerted action to influence Parliament to pass a needful measure it will be a great mistake. We rejoice at the result of the Dolcoath meeting. We know of the urgent reasons why the existing lease should be cancelled, but these reasons are solely in the interests of the lord of the manor. The company has the best of it, and are likely to have, if they continue to refuse to surrender their present deed, which has 4½ more years to run. It was well said that "much may happen in 4½ years affecting Dolcoath," and much will happen if Mr. Basset does not alter his policy. It is to be regretted that he is so badly advised, the more so as his family will so seriously suffer by this mistake. As we before intimated, the matter for consideration is that no other lord of consequence is likely to follow the unfortunate example of the Tehidy authorities, and this cannot be too soon or positively made public. The conduct of Capt. Thomas, the manager of Dolcoath, is as usual beyond all praise, and it is fortunate that he has such a judicious and splendid committee to support him.

Important mine meetings are being announced, and long notices are being given—one week before the time West Kitty shareholders are to be called to gether. The amount of dividend is not yet known. The shares have been depressed, but a very fair business has been transacted in them. The market value of these shares will probably be regulated by the price of tin. Trevaunance shareholders meet on the following day, and their accounts will show well, and the report is certain to be good. The sum of 20,000l. appears to be a very low figure for a property of this nature. But not long since West Kitty, the adjoining mine, was not selling for a larger sum, and it has since been eagerly sought after at the rate of 30,000l. Very little, however, has been said about Trevaunance, and it appears to us that very little is said, as a rule, about shares which should not be lost sight of. It will be observed that, on the whole, the mining market has not been in a very unsatisfactory state. No doubt there has been an absence of business, but this has not been the peculiarity of the mine market alone. All markets have been more or less depressed. To the initiated this has not been a matter for surprise, but it has been most undoubtedly a very fortunate circumstance for moneyed men. Large purchases of stocks have been quietly made, and large profits will be the result. "Weak men are going to the wall" no doubt, but strong men are increasing in strength. Let us hope that the strength of the prosperous will not diminish, and that the weak and unfortunate may have a happy turn of fortune.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the TIN HILL (LIMITED).
ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY, who have not received notice from the Official Liquidator of the company that their claims have been already admitted, are hereby required **TO COME IN and PROVE** their several **DEBTS or CLAIMS** at the Registrar's Office, Truro, on or before the 14th day of March, 1883; or, in default thereof, they will be **EXCLUDED** from the **BENEFIT** of any **DISTRIBUTION** made before such proof.
FREDERICK MARSHALL, Registrar.
 Dated Registrar's Office, Truro, the 28th day of February, 1883.

NOTICE TO COAL CONTRACTORS.

THE COMMISSIONERS of IRISH LIGHTS are prepared to **RECEIVE TENDERS** for the following **SUPPLIES of GAS and FURNACE COALS.**
 The Canal to be supplied from the Ledmahagow or Arnislon Pits, and the Furnace to be either Whitehaven Slack, House Coal, Dross, or Coking Coal Brezre.

Gas Coal—Tons.	Furnace Coal—Tons		
St. John's Point.....	Co. Down.....	15	42
Rockabill.....	Co. Dublin.....	30	24
Howth Bally.....	Ditto.....	30	50
Wicklow Head.....	Co. Wicklow.....	26	40
Hook Tower.....	Co. Wexford.....	30	27
Minthead.....	Co. Waterford.....	25	27
Galley Head.....	Co. Cork.....	45	35

 Specifications and Tender Forms, on which offers must be made, can be had on application to the undersigned.
 Tenders to be delivered at the Irish Lights Office up to noon, on Thursday, the 1st March, sealed and endorsed, "Tender for Gas and Furnace Coal."
 The Commissioners do not bind themselves to accept the lowest or any Tender.
 By order, **OWEN ARMSTRONG, Secretary.**
 Irish Lights Office, 20th February, 1883.

THE EAST PANT DU LEAD MINING COMPANY (LIMITED).

THE VALUABLE LEASEHOLD PREMISES, known as the **EAST PANT DU MINE,** situate in the parish of Nerguis, in the county of Flint, are **OFFERED FOR SALE.**
 For particulars, apply to **JOHN ASHWORTH, 8, King-street, Manchester.**

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TO BE DISPOSED OF IMMEDIATELY, SEVERAL GOOD MINES, new and old.
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FOR SALE, on account of the death of the Proprietor, the **RHOS ANTHRACITE COLLIERY,** Llanelli, South Wales, connected with the railway system of the country, and with the ports of Swansea and Llanelli. This colliery, with the present low price of coal, is worked at a fair profit.

Also the **GORSGOCH COLLIERY and BRICKWORKS.**
 For particulars, apply to **W. ROSSER, Esq., Civil and Mining Engineer, Llanelli, South Wales.**

ENGINES, BOILERS, &c., FOR SALE:—
FIRST-CLASS 50-inch cylinder PUMPING ENGINE
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CALCINER, &c.
 Apply to **Capt. NICHOLLS, Camborne.**

THE ALLEN STEAM ENGINE GOVERNOR develops the utmost Power, gives Uniformity of Speed under varying loads, and Economises Fuel.
ALSO
PEET'S PATENT VALVE TAP, for Steam, Water, and Gas, from ½ inch upwards. Simple, durable, double seats, full way, and all parts interchangeable.
 For particulars, apply to—
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BARROWS AND STEWART, ENGINEERS, BANBURY.
PORTABLE STEAM ENGINES, &c.
 The following are high class, and **TO BE SOLD** very cheap for the quality—
 30 h.p. double cylinder new **PORTABLE ENGINE,** with link-motion reversing gear.

25 h.p. ditto	ditto	ditto
25 ditto	ditto (without)	ditto
16 ditto	ditto (with or without)	ditto
12 ditto	ditto	ditto
10, 8, 7, and 5 h.p. single cylinder PORTABLE or SEMI-PORTABLE ENGINES.		
5, 6, and 3 ditto	VERTICAL STEAM ENGINES.	
8 h.p. combined ENGINE, BOILER, and 6 ft. pan Mortar Mill on wheels.		
Also several excellent secondhand PORTABLE STEAM ENGINES.		
12 h.p. double cylinder PORTABLE ENGINE, by Burrell and Son.		
8 single cylinder ditto	Marshall and Son.	
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 A **Cornish BOILER,** 8 ft. 10 long x 4 ft. 6 diameter.
 A ditto 9 ft. 10 long x 3 ft. 2 " "
 A **CIRCULAR SAW TABLE,** 5 ft. x 2 ft. 6, with 30 in. saw.
 A **HAND SAW MACHINE,** 30 in. pulleys.
 To be seen at
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FOR SALE—
ONE 20 inch and ONE 40 inch PUMPING ENGINES, with **BOILERS and FITTINGS**
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ONE 12½ inch HORIZONTAL ENGINE, with **CAPSTAN and HAULING MACHINE** attached.
 All the above Engines are in first-class condition.
 Several **WATER WHEELS,** from 20 to 60 feet diameter. **STAMPS' AXLES** and a large quantity of **SECONDHAND MINING MATERIALS.**
 Apply to—
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STEAM BOILERS FOR SALE, SECONDHAND, with and without Galloway Tubes, single and double rivetted, working pressure of 60 lbs., 65 lbs., 70 lbs., and 80 lbs. steam pressure. **VERY CHEAP.**
FIVE BOILERS, 30 feet by 7 feet 6 inches diameter, excellent order.
SIX BOILERS, 20 feet by 7 feet Galloway Tubes, " "
FOUR BOILERS, 28 feet by 7 feet " "
THREE BOILERS, 28 feet by 7 feet " "
FOUR BOILERS, 24 ft. by 6 ft. 6 in. " "
 And other sizes in stock. Equal to new.
WINDING ENGINES and COLLIERY PLANT of every description, second-hand, in stock. **VERY CHEAP.** Write to—
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THE SAFETY BLASTING POWDER COMPANY (LIMITED).

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 The valuable attributes claimed for this Powder are—
ABSENCE OF SMOKE,
ABSENCE OF FUMES,
ABSENCE OF FLAMES, and
IMMUNITY FROM DANGER BOTH IN STORAGE AND USE.
 By exhaustive experiments, also, it has been proved better in every respect than either Dynamite or Blasting Powder, so that there is great advantage to the consumer in safety and relative cheapness.
 Sample cases in either loose or cartridge form (1½ dia.), containing 100 lbs. (40s.), 50 lbs. (20s.), 25 lbs. (10s. 6d.), will be sent on application. A 100 lb. case free to any railway station in the United Kingdom.
 Special quotations for quantities.
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 Descriptive Pamphlets gratis on application.

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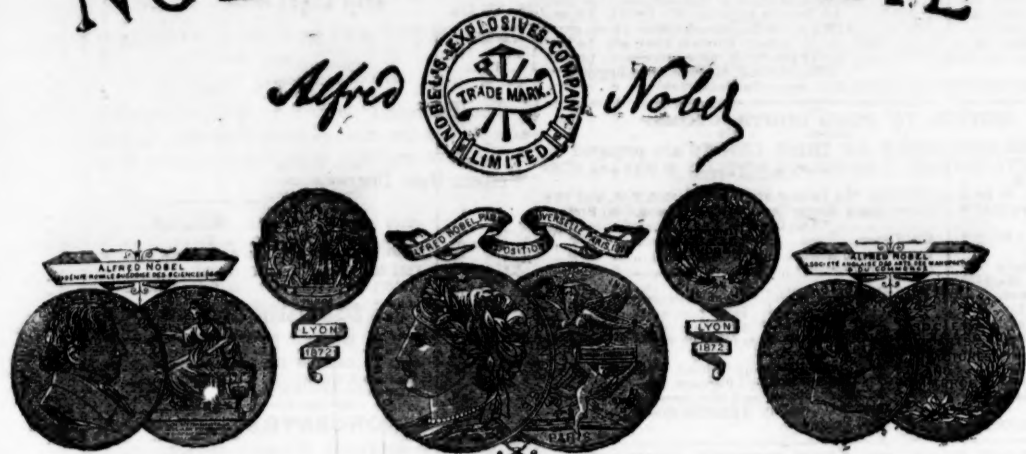
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T. G. MARSH, 2, Priory-street, Dudley.
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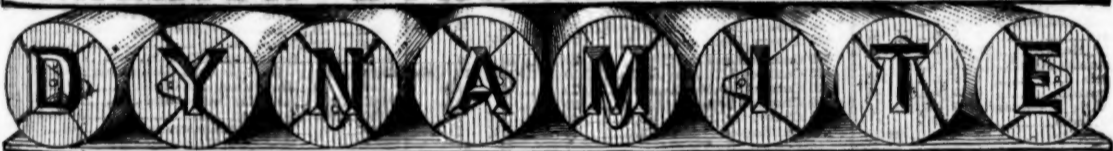
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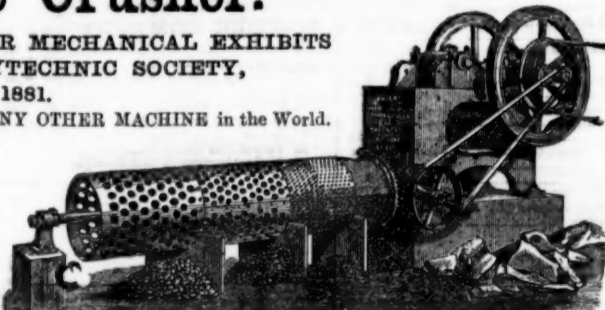
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GENTLEMEN,—We have the pleasure to inform you that the
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entire satisfaction, and we are now able to fulfil our contract
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Yours truly,

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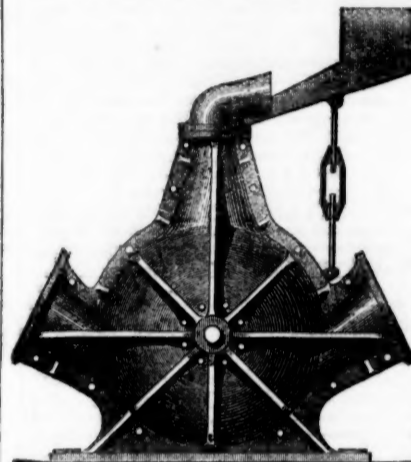
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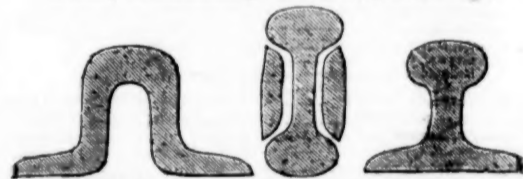
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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
3200 Blue Hills, t, St. Agnes	11 7 11	3 1/2	3 1/2	52 11 8	0 2 0	Nov. 1881
6000 Carr Brea, t, Illogan	11 7 11	3 1/2	3 1/2	52 11 8	0 2 0	Nov. 1881
4000 Cragmant, t, Cardigan	11 7 11	3 1/2	3 1/2	52 11 8	0 2 0	Nov. 1881
10240 Devon Gr. Consols, t, Tavistock	11 7 11	3 1/2	3 1/2	52 11 8	0 2 0	Nov. 1881
4296 Dolcoath, t, Camborne	10 14 10	5 1/2	5 1/2	118 7 0	0 6 9	Dec. 1880
4000 East Pool, t, Illogan	10 9 9	4 1/2	4 1/2	34 3 6	1 7 6	Jan. 1883
12500 Frongoch, t, Cardigan (11000 sh. iss.)	2 0 0	2 1/2	2 1/2	0 4 0	0 2 0	Feb. 1882
12000 Great Holway, t, Flintshire	5 0 0	4 1/2	4 1/2	0 5 0	0 2 0	Feb. 1882
12000 Great Lacey, t, Isle of Man	4 0 0	18 1/2	18 1/2	20 2 0	0 6 0	Jan. 1883
5400 Green Hurth, t, Durham	0 0 0	8 1/2	8 1/2	4 2 0	0 5 0	Nov. 1882
20000 Grogwinion, t, Cardigan	2 0 0	1 1/2	1 1/2	0 16 0	1 6 0	July 1880
12040 Gwralake (Chitlers), t, t	2 2 0	2 1/2	2 1/2	0 19 0	0 2 0	Mar. 1882
2800 Isle of Man, t, Isle of Man	25 0 0	0 0 0	0 0 0	83 5 0	1 0 0	Sept. 1880
6000 Killfirth, t, Chacewater	4 3 0	3 1/2	3 1/2	0 10 0	0 1 6	Dec. 1882
20000 Leadhills, t, Lanarkshire	6 0 0	2 1/2	2 1/2	0 18 0	0 3 0	Aug. 1882
4000 Liburne, t, Cardigan	18 15 0	0 0 0	0 0 0	614 0 0	0 10 0	Dec. 1882
10000 Mellanor, t, Hayle	2 0 0	4 3 4	4 3 4	0 2 0	0 2 6	Feb. 1883
9000 Miners Mining Co., Wrexham	5 0 0	0 0 0	0 0 0	69 8 2	1 6 0	Feb. 1883
20000 Mining Co. of Ireland, t, t	7 0 0	0 0 0	0 0 0	24 0 0	0 2 0	Jan. 1880
100000 Mulberry, t, Cornwall (26500 sh. iss.)	1 0 0	0 0 0	0 0 0	0 6 0	0 6 0	Sept. 1882
11829 North Hendre, t, Wales	2 10 0	0 0 0	0 0 0	3 18 0	0 4 0	Nov. 1882
4146 Ditto	1 5 0	0 0 0	0 0 0	0 11 3	0 2 0	Nov. 1882
3000 North Levant, t, St. Just	13 6 0	2 1 2	2 1 2	4 16 0	0 3 0	Feb. 1881
4700 Penhalva, t, St. Agnes	4 0 0	0 0 0	0 0 0	3 17 0	0 1 6	Jan. 1881
18200 Phoenix, t, St. Agnes	4 0 0	0 0 0	0 0 0	3 17 0	0 1 6	Jan. 1881
18000 Pr. Patrick, t, t (112,000 p. 10 p.)	1 0 0	0 0 0	0 0 0	0 18 0	0 2 0	July 1880
12000 Roman Gravel, t, Salop	7 10 0	0 0 0	0 0 0	9 6 0	0 5 0	Nov. 1882
512 South Caradon, t, St. Cleer	1 5 0	27 1/2	27 1/2	751 3 0	0 2 0	Jan. 1883
6123 South Curdow, t, Camborne	6 5 0	0 0 0	0 0 0	9 19 0	0 10 0	Jan. 1883
8000 South Darren, t, Cardigan	1 16 0	0 0 0	0 0 0	0 4 0	0 2 0	Apr. 1880
8000 South Wheal Frances, t, Illogan	9 2 4	7 1/2	7 1/2	40 15 6	0 10 0	July 1880
6000 Tincroft, t, Pool, Illogan	12 0 0	0 0 0	0 0 0	51 3 8	0 5 0	Dec. 1881
15000 Van, t, Llanidloes	1 0 0	0 0 0	0 0 0	23 13 0	0 2 6	Jan. 1883
12000 West Holway, t, Flintshire	1 0 0	1 1/2	1 1/2	3 1 0	0 1 0	Oct. 1881
6000 West Hasset, t, Illogan	7 0 4	6 5 1/2	6 5 1/2	28 3 0	0 6 8	Apr. 1882
6000 West Kiddy, t, St. Agnes	0 12 0	10 0 0	10 0 0	3 0 0	0 8 0	Nov. 1882
12000 Wheal Ore, t, Tavistock	2 4 0	2 1/2	2 1/2	0 16 3	0 2 6	Nov. 1882
12000 Wheal Eliza Consols, t, St. Austell	18 0 0	12 10 12	12 10 12	54 10 0	1 0 0	Aug. 1882
6000 Wheal Grenville, t, Camborne	15 0 0	0 0 0	0 0 0	1 12 6	0 5 0	Sept. 1882
4295 Wheal Kiddy, t, St. Agnes	12 0 0	1 1/2	1 1/2	6 8 0	0 6 0	Jan. 1881
3000 Wheal Pevor, t, Redruth	9 1 0	3 3 3 1/2	3 3 3 1/2	8 13 6	0 4 0	Mar. 1882

FOREIGN DIVIDEND MINES.

Shares.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500 Alamillos, t, Spain	2 0 0	1 1/2	1 1/2	2 8 2	0 2 6	Oct. 1882
130000 Almaden and Tinto Consol., t, t	1 0 0	0 0 0	0 0 0	0 6 3	0 1 0	May 1876
20000 Australian, t, South Australia	7 7 6	2 1/2	2 1/2	1 7 6	0 2 0	Aug. 1882
15000 Birdseye Creek, t, California	4 0 0	1 1/2	1 1/2	1 4 0	0 3 0	Dec. 1882
30000 Bratsberg, t, Norway	8 0 0	0 0 0	0 0 0	2 0 0	0 2 0	Feb. 1883
50000 Cape Copper Mining, t, South Africa	8 0 0	54 5 1/2	54 5 1/2	50 7 6	0 2 0	Dec. 1882
50000 Copiapo, t, Chile (44 shares)	3 8 0	3 1/2	3 1/2	4 2 6	0 2 0	Dec. 1882
70000 English and Australian, t, t, S. Aust.	2 10 0	1 1/2	1 1/2	3 6 0	0 1 0	Mar. 1882
2000 Eng.-Aus., t, Vict. (20000 o.)	1 0 0	0 0 0	0 0 0	3 8 0	0 3 0	Apr. 1882
25000 Fortuna, t, Spain	2 0 0	3 1/2	3 1/2	8 2 0	0 1 0	Oct. 1882
80000 Frontino and Bolivia, t, New Gran.	2 0 0	2 1/2	2 1/2	3 10 0	0 1 0	Dec. 1882
270,000 Henriett, t, Leadville, Colorado	1 0 0	14 3 1/2	14 3 1/2	0 0 0	0 5 0	Feb. 1883
20000 La Plata, t, Leadville	1 0 0	14 3 1/2	14 3 1/2	0 12 1/2	0 1 0	Oct. 1882
15000 Linares, t, Spain	3 0 0	3 1/2	3 1/2	19 10 0	0 1 0	Oct. 1882
20000 Marbella Iron Ore, t, Spain	10 0 0	7 6 1/2	7 6 1/2	0 10 0	0 10 0	June 1882
185164 Mason & Barry, t, Portugal	10 0 0	17 16 1/2	17 16 1/2	1 15 0	0 10 0	Oct. 1882
60000 New Quebrada, t, Venezuela	5 0 0	4 1/2	4 1/2	0 9 0	0 3 0	Aug. 1882
1000 Ditto, Debutentes	100 0 0	98 93 98	98 93 98	6 per cent.		
5000 Oregon, t, Oregon, U.S. (pref. sh.)	4 0 0	0 0 0	0 0 0	0 2 6	0 2 6	Dec. 1880
80000 Pauticillo, t, Chile	4 0 0	0 0 0	0 0 0	0 6 7 1/2	0 6 0	Oct. 1882
25000 Pitangui, t, Brazil (in 6000 £1 pd.)	0 10 0	0 0 0	0 0 0	0 1 0	0 1 0	Oct. 1882
14000 Pontgibaud, t, France	20 0 0	13 11 13	13 11 13	29 11 0	0 14 4	Dec. 1882
100000 Port Phillip, t, Victoria (22 shares)	1 0 0	3 1/2	3 1/2	1 14 2	0 10 0	Feb. 1881
50000 Rara Fortuna, t, Argent. Republic	1 0 0	0 0 0	0 0 0	3 3 0	0 1 0	July 1882
54000 Richmond Consol., t, Nevada	5 0 0	7 1/2	7 1/2	14 6 0	0 5 0	Feb. 1883
24538 Rio Tinto, t, Mortgage Bank, Huelva	100 0 0	103 101 103	103 101 103	5 per cent.		July 1880
150000 Santa Barbara, t, Brazil	10 0 0	25 24 25	25 24 25	0 12 0	0 10 0	Nov. 1882
40000 Santa Barbara, t, Brazil	10 0 0	25 24 25	25 24 25	0 12 0	0 10 0	Nov. 1882
120000 Scottish-Australian Mining Co., t, t	1 0 0	2 1/2	2 1/2	12 1/2	0 12 1/2	Oct. 1882
80000 Ditto, New	0 10 0	1 1/2	1 1/2	12 1/2	0 12 1/2	Oct. 1882
22500 Sierra Buttes, t, California	0 10 0	1 1/2	1 1/2	2 4 0	0 1 6	Apr. 1882
40625 Ditto, Fluma Eureka	2 0 0	1 1/2	1 1/2	2 16 0	0 3 0	Apr. 1882
253000 St. John del Rey (25 Stock and multiple debt in)	100 0 0	130 130 130	130 130 130	5 p. c. for half-year June 1882		
150000 Tantalum, t, Wynnaf	10 0 0	37 36 37	37 36 37	31 6 0	0 2 10	Aug. 1882
81998 Tharsis, t, Spain (31100 7 1/2 p.)	10 0 0	37 36 37	37 36 37	31 6 0	0 2 10	Aug. 1882
20000 Tolima, t, Colombia (A & Bahares)	5 0 0	9 7 9	9 7 9	2 11 6	0 5 0	Mar. 1882
25000 Victoria (London), t, Australia	1 0 0	0 0 0	0 0 0	0 13 0	0 0 8	Feb. 1881
100000 Victorina (Nevada, U.S.) Deb. Bds.	1 0 0	0 0 0	0 0 0	0 2 0	0 2 0	June 1882
5000 Western Andes, t, Colombia	5 0 0	5 1/2	5 1/2	3 17 6	0 3 0	Aug. 1882
2100 W. Peznan (500 pref. sh. £10 0 0)	10 0 0	9 10 9	9 10 9	4 2 0	0 8 0	Apr. 1881
54000 Yorke Fen, t, South Aust. (Pref. t.)	1 0 0	1 1/2	1 1/2	3 0 0	0 3 0	May 1882

* Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.	Paid.	Last wk.	Clos. pr.
25000 Aberdun, t, Denbigh	1 10 0	1 1/2	1 1/2
30000 Alston United, t, Cumberland	1 0 0	0 0 0	0 0 0
12000 Anderson, t, t, Devonshire	1 0 0	1 1/2	1 1/2
12000 Asheton, t, Carnarvonshire	5 0 0	0 0 0	0 0 0
12000 Bedford Unit, t, t, (21 lib.)	0 14 0	1 1/2	1 1/2
30000 Bodidra, t, t, Denbighshire	1 0 0	0 0 0	0 0 0
10000 Brada, t, t, Isle of Man	1 0 0	5 4 1/2	5 4 1/2
30000 British, t, t, Wrexham	1 0 0	1 1/2	1 1/2
30000 Beuro Consols, t, t, Flintshire	1 0 0	2 1 1/2	2 1 1/2
20000 Bwch United, t, t, Cardigan	1 0 0	3 1/2	3 1/2
50000 Carn Camborne, t, t, Camborne	1 0 0	1 1/2	1 1/2
30000 Carnarvonshire Cons., t, t, Llanrwst	2 17 0	0 0 0	0 0 0
37500 Central Fodale, t, t, Carnarvon	1 0 0	1 1/2	1 1/2
25000 Coed-y-Fedw, t, t, Buarth	1 0 0	1 1/2	1 1/2
24500 Cook's Kitchen, t, Illogan	30 14 30	30 14 30	30 14 30
10000 Cornwall Great Cons. (4500 issued)	1 0 0	0 0 0	0 0 0
4900 Crook Burn, t, t, Cumberland	0 17 0	3 1/2	3 1/2
45000 D'Ereby Mountain, t, t, Llanrwst	0 10 0	1 1/2	1 1/2
12000 Derwent, t, t, Durham	4 0 0	1 1/2	1 1/2
30000 Devon Friendship, t, t, t, Tavistock	1 0 0	3 1/2	3 1/2
12000 Devon Great United (21 shares)	1 5 0	3 1/2	3 1/2
50000 Drakewells, t, t, t, Calstock	0 15 0	3 1/2	3 1/2
12000 East Blue Hills, t, t, St. Agnes	0 5 0	1 1/2	1 1/2
6000 East Botallack, t, t, St. Just	0 14 0	1 1/2	1 1/2
6144 East Caradon, t, t, St. Cleer	4 19 0	1 1/2	1 1/2
4000 East Chiverton, t, t, Perranabuloe	10 12 3	1 1/2	1 1/2
4000 East Craven Moor, t, t, Pateley Bridge	1 0 0	3 1/2	3 1/2
15000 East Devon Cons., t, t, Buckfastleigh	1 0 0	2 1/2	2 1/2
30000 East Herodfoot, t, t, Liskeard	1 0 0	1 1/2	1 1/2
20000 East Long Lake, t, t, Wales	1 0 0	1 1/2	1 1/2
25500 East Roman Gravel, t, t, Salop	1 0 0	3 1/2	3 1/2
100 East Tregembo, t, t, t, Marazion	100 0 0	100 96 100	100 96 100
18000 East Van, t, t, Llanidloes	5 0 0	0 0 0	0 0 0
12000 East Wheal Lovell, t, t, Helston	16 8 6	1 1/2	1 1/2
10000 East Wheal Rose, t, t, t, Newlyn East	1 0 0	1 1/2	1 1/2
12000 Gawton, t, t, Tavistock	2 0 0	3 1/2	3 1/2
4000 Gabbett, t, t, Devon	1 0 0	1 1/2	1 1/2
30000 Goddard, t, t, t, Carnarvon	1 0 0	1 1/2	1 1/2
10000 Goddard, t, t, t, Carnarvon	1 0 0	1 1/2	1 1/2
32000 Goginan, t, t, Cardigan	1 0 0	1 1/2	1 1/2
25000 Goodevere, t, t, St. Cleer	2 10 0	3 1/2	3 1/2
8500 Gorseid and Merlyn Con., t, t, Flint	2 10 0	3 1/2	3 1/2
20000 Great Drifft (10000 sh. issued)	1 0 0	0 0 0	0 0 0
6000 Great West Chiverton, t, t, St. Agnes	0 5 0	3 1/2	3 1/2
12000 Great Wheal Worth, t, t, Cornwall	1 0 0	1 1/2	1 1/2
10000 Gwyn-y-Mynydd, t, t, t, Flint (pref.)	1 0 0	1 1/2	1 1/2
7000 Gwydyr Amal, t, t, t, Carnarvon	1 0 0	1 1/2	1 1/2
12000 Herodfoot, t, t, near Liskeard	1 0 0	3 1/2	3 1/2
18000 Hingston Down, t, t, Calstock	0 13 0	3 1/2	3 1/2
20000 Kirkmichael, t, t, t, Calstock	1 0 0	0 0 0	0 0 0
25000 Kit Hill Gr. Cons., t, t, t, (21 sh.)	0 17 6	3 1/2	3 1/2
15000 Lady Ann, t, t, Llanarmon	0 10 0	3 1/2	3 1/2
25000 Langford, t, t, t, Callington	0 10 0	3 1/2	3 1/2
15000 Llandegla, t, t, t, Wales	1 0 0	0 0 0	0 0 0
5120 Lovell, t, t, Wendron	0 18 0	3 1/2	3 1/2
9000 Marley Valley, t, t, Linkinhorne	7 15 0	3 1/2	3 1/2
6000 Medlyn Moor, t, t, Wendron	3 7 10	3 1/2	3 1/2
8000 Mona, t, t, t, Anglesea	5 0 0	4 1/2	4 1/2
20000 Mona Consol., t, t, Anglesea	1 0 0	2 1/2	2 1/2
15000 Monkstown, t, t, t, Devon	2 0 0	2 1/2	2 1/2
20000 Mostyn Consol., t, t, t, Flint	1 0 0	4 3 1/2	4 3 1/2
12000 Morris Du, t, t, t, Anglesea	1 0 0	3 1/2	3 1/2
17500 Mount Bay, t, t, t, Redruth	1 0 0	3 1/2	3 1/2
6144 Mount Carbis, t, t, t, Redruth	1 10 0	3 1/2	3 1/2
12000 New Caradon, t, t, St. Cleer	0 5 0	3 1/2	3 1/2
3400 New Cook's Kitchen, t, t, Illogan	9 8 0	5 4 5	5 4 5
8000 New Dolcoath, t, t, t, Camborne	3 0 0	0 0 0	0 0 0
10000 New Great Wheal Vor, t, t, Breage	0 10 0	0 0 0	0 0 0
10000 New Holmbush, t, t, t, Callington	3 0 0	0 0 0	0 0 0
6000 New Kiddy, t, t, St. Agnes	0 18 0	2 1/2	2 1/2
15000 New Redmoor, t, t, t, Callington	1 5 0	0 0 0	0 0 0
17500 New Tarn, t, t, t, St. Austell	0 6 0	0 0 0	0 0 0
3500 New Tincroft, t, t, t, Lelant	0 6 0	0 0 0	0 0 0
12000 New Trumpet, t, t, t, Wendron	1 0 0	1 1/2	1 1/2
12000 New West Caradon, t, t, Liskeard	0 4 6	63 8 8	63 8 8
3000 New Wheal Pevor, t, t, Redruth	0 10 0	0 0 0	0 0 0
5200 North Bury, t, t, t, Scorrier	1 0 0	1 1/2	1 1/2